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MPsrch_nn n.a. - n.a. database search, using Smith-Waterman algorithm

on: abular output not generated. Mon May 4 11:44:01 1998; MasPar time 1199.91 Seconds 1331.888 Million cell updates/sec

Description:
Perfect Score:
N.A. Sequence:
Comp: >Q06583 (1-1045) from n-geneseq.seq 1045

1 attccggcttctatggagca......ctggacacagcatgaataaa 1045 taaggccgaagatacctcgt.....gacctgtgtcgtacttattt

Scoring table: TABLE default Gap 6

Nmatch STD: Dbase 0; Query 0

Searched: 436399 seqs, 764661465 bases x 2

Post-processing: Minimum Match 0% Listing first 45 summaries

1:em_in 2:em_or 3:em_om 4:em_ov 5:em_pl 6:em_htg
7:em_hum1 8:em_hum2 9:em_ba 10:em_ro 11:em_un 12:em_vi
13:em_pat

genbank105

Database:

Database:

14:gb_ro 15:gb_om 16:gb_ov 17:gb_in 18:gb_pl 19:gb_ba 20:gb_st 21:gb_vi 22:gb_ph 23:gb_sy 24:gb_un 25:gb_pat 26:gb_htg 27:gb_pr1 28:gb_pr2

Mean 10.964; Variance 5.911; scale 1.855

atistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	Score	Query Match	Query Match Length DB	BB	ID	Description •	Pred. No.
ш ;	1045	100.0	1047	15	BOVMET	Bovine metalloproteina	0.00e+00
2	599	57.3	1035	27	HUMMET	Human metalloproteinas	
ω	599	57.3	1062	28	S48568 ·	tissue inhibitor of me	0.00e+00
4	599	57.3	. 1062	27	HUMT IMP2	Human metalloproteinas	; 0.00e+00
ហ	579	55.4	1007	14	S82718	TIMP-2-testicular tiss	0.00e+00
o	579	55.4	1009	14	S72594	TIMP-2-tissue inhibito	•
7	. 577	55.2	969	14	RNU14526	Rattus norvegicus tiss	0.00e+00
œ	575	55.0	1695	14	MUSTIMP2A	Mouse tissue inhibitor	·
9	575	55.0	1714	14	MMTIMP2	M.musculus TIMP-2 mRNA	0.00e+00
10	570	54.5	958	14	RATTIMP	Rattus norvegicus matr	0.00e+00
11	527	50.4	676	14	MUSTIMP2B	M.musculus metalloprot	: 0.00e+00
12	482	46.1	597	14	CGRNAMP	C. longicaudatus mRNA	0.00e+00
13	452	43.3	555	27	HSTIMP2M	H. sapiens mRNA for tis	0.00e+00
14	351	33.6	814	7	AF004664	Galline dalline tiesno i	1.22e-240

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3.4	3.4	٠	ω 5			3.6	3. 8	4.3	4.6	4.6	4.6	4.6	4.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5	7.7	7.9	7.9			10.9	11.5	19.7	
793	769	764	780	432	777	749	215	7218	4591	1483	1292	704	886	4587	2042	1941	1284	1240	1222	1021	606	7218	.2691	675	250	1189	224	539	970	1367	
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E01043	HUMFCI	HUMOGCA	I08434	I08433	BABTIMP	RABTIMP	128278	166494	MMTIMP3MI	MUSTIMP3A	MUSTIMP3X	RNU27201	CHKHIMP3A	HSU14394	BTU77588	HSMIGGE	S78453	HSU67195	HSU02571	HSTIMP3	HUMTIMP3A	166494	HUMANT IMP1	I50867	HUMANT IMP2	HSU76456	HUMANT IMP3	HUMANT IMP4	268860	HUMANT IMP5	
O.	Human fibroblast colla	ΩJ.	Sequence 3 from Patent	Sequence 2 from Patent	Papio cynocephalus (cl	Rabbit hyperoxia induc	т,	Sequence 14 from paten	M.musculus (Balb/C) TI	Mouse tissue inhibitor	Mouse metalloproteinas	Rattus norvegicus tiss	Gallus gallus metallop	Human tissue inhibitor	Bos taurus tissue inhi	H.sapiens mig-5 gene.	TIMP-3-tissue inhibito		Human tissue inhibitor	H.sapiens TIMP3 mRNA f	w	Sequence 14 from paten	ŝ	ä	Human tissue inhibitor	Human tissue inhibitor		Human tissue inhibitor	timp-2-metalloproteina	Human tissue inhibitor	
7.04e-06	7.04e-06	7.04e-06	1.85e-06	1.85e-06	4.80e-07	4.80e-07	3.11e-08	2.75e-11	3.60e-13	3.60e-13	3.60e-13	3.60e-13	8.34e-14		5.50e-21	5.50e-21	5.50e-21	5.50e-21	-	-	.50e-	.18e-	.06e-	•	8.19e-37	1.61e-37	2.36e-40	3.89e-59	1.53e-63	2.67e-128	

ALIGNMENTS

polyA_signal	mat_peptide	sig_peptide						CDS		source	FEATURES		COMMENT		JOURNAL P	TITLE	RS		В	< 1	ORGANISM B		DS			DEFINITION B	RESULT 1	
			DP.	보	.	>>		2.	>>	, μ	· 5	(.E.Langle))raft entry	90207285	roc Nati	DIA CIOUI	oone, T.C.	(bases	ovidae; Bo	ertebrata;	Bos taurus	ovine aori	etallopro	g163341		Bovine meta	BOVMET	
10421047	369950	291368 /note="metalloproteinase	P.	RAKAVNKKEVDS IGGKKEYLIAGK	ranslation=	/codon_start=1 /db_xref="PID:q163342"	note="metall	291953	/db_xref="taxon:9913"	11047	Location/Qualifiers	7, 23-FEB-19	q and compute		Acad Sci	ig and expres	Johnson, M.	(bases 1 to 1047)	Bovidae; Bovinae; Bos.	Eutheria;	mi toobondi	ca endotheli	metalloproteinase inhibitor.		•	alloproteina:	1047 bp	
obrocernase II		oproteinase in	WMDWVTEKNINGHO	GNDIYGNPIKRIQI AEGNGNMHITLCDI	"MGAAARSLPLAFO	1 :q163342"	<pre>/note="metalloproteinase inhibitor precursor"</pre>		on:9913"		ifiers	K.E.Langley, 23-FEB-1990, for release after publication.	er-readable se		related to tissue innibitor of metalioproteinases Proc. Natl. Acad. Sci. U.S.A. 87, 2800-2804 (1990)	CDNA Clouding and expression of a metallocation	Boone, T.C., Johnson, M.J., De Clerck, Y.A. and Langley, K.E.	:		Vertebrata; Eutheria; Artiodactyla; Ruminantia; Pecora;	ial oukarvotos	Bovine aorta endothelium, cDNA to mRNA.	bitor.			metalloproteinase inhibitor mRNA, complete cds	mRNA	
THILLEGE		inhibitor signal)AKFFACIKRSDG	TVPWDTLSATQK	LLLLGTLLPRAD		hibitor prec					e after publ	equence [1] k		.10proceinase 100-2804 (199	arroproterna	Y.A. and Lan	•		Ruminantia;	· Wotaroa. C	WA.			•	RNA, complet	мам	
		al peptide"	MIPCYISSPDECLWMDWYTEKNINGHQAKFFACIKRSDGSCAWYRGAAPPKQEFLDIE DP"	IRAKAVNKKEVDSGNDIYGNPIKRIQYEIKQIKMEKGPDQDIEFIYTAPAAAVCGVSL DIGGKKEYLIAGKAEGNGNMHITLCDFIVPWDTLSATQKKSLNHRYQMGCECKITRCP	translation-"MGAAARSLPLAFCLLLLGTLLPRADACSCSPVHPQQAFCNADIV		ursor"					ication.	Draft entry and computer-readable sequence [1] kindly submitted by	15	0)	se innipicor	gley, K.E.	, !		Vertebrata; Eutheria; Artiodactyla; Ruminantia; Pecora; Bovoidea;	hordata.	-				e cds.	15-SEP-1990	

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Human fetal aorta, cDNA to mRNA.
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Boone, T.C., Johnson, M.J., De Clerck, Y.A. and Langley, K
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IRAKAVSEKEVDSGNDIYGNPIKRIQYEIKQIKMFKGPEKDIEFIYTAPSSAVCGVSL
DVGGKKEYLIAGKAEGDGKMHITLCDFIVPMDTLSTTQKKSLNHRYQMGCECKITRCP
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255. .917
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IRAKAYSEKEVDSGNDIYGNPIKRIQYEIKQIKMEKGPEKDIEFIYTAPSSAVCGVSL
DVGGKKEYLLAGKASGGGKMHITLCDBIVFWDTLSTTQKKSLMHRYQMCCECKITRCP
MIPCYISSPDECLWMDWVTEKNINGHQAKFFACIKRSDGSCAWYRGAAPPKQEFLDIE
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DEFINITION

Human

metalloproteinase-2

inhibitor

(TIMP-2)

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Best Local Similarity 89.6%;
Matches 706; Conservative
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TTGCAGGAAAGGCCGAGGGGGACGGCAAGATGCACATCACCCTCTGTGACTTCATCGTGC
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                              cccccgccgctgtgtgtgggtctcgctggacattggaggaaagaaggagtatctca
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g339706
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Tissue inhibitor of metalloproteinases-2 (TIMP-2) mRNA expression in tumor cell lines and human tumor tissues
J. Biol. Chem. 265 (23), 13933-13938 (1990)
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Human melanoma cell line A2058,
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kindly submitted by W.G.Stetler-Stevenson,
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                                                                                                                                                                                                                                                                                                                                                                                                 /gene="TIMP"
349. 930
/gene="TIMP"
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/db_xref="taxon:9606"
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271. .348
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/db_xref="FID:G339707"
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DVGGKKEYLLAGKAEGDGKMHITLCDFIVPMDTLSTTQKKSLNHRYQMGCECKITRCP
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Pred. No. 0.00e+00;
0; Mismatches 77;
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                                                                                                                                                                                                                                                                                                                                       Grima,J., Calcagno,K. and Cheng,C.Y.
Purification, CDNA cloning, and developmental changes
steady-state mRNA level of rat testicular tissue inhil
metalloproteases-2 (TIMP-2)
J. Androl. 17 (3), 263-275 (1996)
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                                                                                                                                                                                                                                                                              entry [NCBI gibbsq 179018] from This sequence comes from Fig.
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                  /product="TIMP-2"
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/product="TIMP-2"
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DVGGKKEYLLAGKAEGDGKMHITLCDEIVPMTLSITGKSLNHRYQMCECKITTCP
MIPCYISSPDECLWMDWYTEKSINGHQAKFFACIKRSDGSCAWYRGAAPPKQEFLDIE
DP″
                                                                                                                    This sequence comes
                                                                                                                                                                  /gene="TIMP-2"
219. .881
                                                                                                     /codon_start-1
                                                                                                                    /note="testicular tissue inhibitor of This sequence comes from Fig. 2A"
                                                                                                                                                 /gene="TIMP-2"
                                                                                                                                                                                                                organism="Rattus sp."/db_xref="taxon:10118"
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Santoro,M., Battaglia,C., Zhang,L., Carlomagno,F., Martelli,M.L.,
Salvatore,D. and Fusco,A.
Cloning of the rat tissue inhibitor of metalloproteinases type 2
(TIMP-2) gene: analysis of its expression in normal and transformed thyroid cells
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/translation="MGAAARSLRIALGLLLLATLLRPADACSCSPVHPQQAFCNADVV
/ranslation="MGAAARSLRIALGLLLLATLLRPADACSCSPVHPQQAFCNADVV
IRAKAVSEKEVDSGNDIYGNPIKRIQYEIKQIKMFKGPDKDIEFIYTAPSSAVCGVSL
DVGGKKEYLIAKRAEGDGKMHITICDFIVFMDTLSITQKKSLMHRYQMGCECKITRCP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (08-SEP-1994) N.C. Partridge, School of Medicine, Department of Pharm. South Grand, St. Louis, MO 63104, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cloning and regulation of rat tissue inhibitor of metalloproteinases-2 in osteoblastic cells Arch. Biochem. Biophys. 311 (2), 313-320 (1994)
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1 (bases 1 to 969)

Cook, T.F., Burke, J.S.,
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Partridge, N.C.
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/codon_start=1
/codon_start=1
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/product="tisue inhibitor of metalloproteinases-2"
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/translation="MGAAARTIRLALGLLLLATLLRADACSCSPVHPQQAFCNADVV
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IRAKAYSEKEYLIAGKAEGDGKMHITLCDFIVPMTLSITQKKSLNHRYQMCGKITROD
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DVGGKKEYLIAGKAEGDGKMHITLCDFIVPMTLSITQKGCAADGGCKITROD

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872. .969
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/clone_11b-"UMR 106-01 library of N.C. Partridge"
/cell_line="UMR 106-01 rat osteosarcoma"
/cell_type="osteoblast"
                                                                                                                                                                                                                                                                                                                                                                                                                                    /strain="Sprague-Dawley"
/db_xref="taxon:10116"
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                                                                               Mus musculus
                                                                                       extracellular protein; matrix metalloproteinase inhibitor of metalloproteinase. Mus musculus (strain BALB/c, sub_species domestilambda gtll) embryo cDNA to mRNA.
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                 1 (bases 1 to 1695)
Shimizu, S., Malik, K.,
                                                     Eukaryotae; mitochondrial eukaryotes; Metazoa; Vertebrata; Eutheria; Rodentia; Sciurognathi; I
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                    Kishi, J.,
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                     Hayakawa, T.
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                 TCACCCAGAAGAAGAAGCCTGAACCACAGGTACCAGATGGGCTGTGAGTGCAAGATCACTC 688
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/gene="TIMP2"
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/note="putative;
515 c 468
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DVGGKKEYLIAGKAEGDGKMHITLCDFIVPWDTLSITQKKSLNHRYQMGCECKITRCP
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/db_xref="PID:9202052"
/translation="MGAAARSLRLALGLLLLASLVRPADACSCSPVHPQQAFCNADVV
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/dev_stage="embryo"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (14-OCT-1991)
Cancer Center Research
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Vertebrata; Eutheria; Rodentia; Sciurognathi; Myomorpha; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  inhibitor of matrix metalloproteinases; inhibitor of metalloproteinases, Type 2
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                                                                       227. .304
/gene="mouse TIMP-2"
305. .886
/gene="mouse TIMP-2"
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DVGGKKEYLIAGKAEGDGKMHITLCDFIVPWDTLSITQKKSLNHRYQMGCECKITRCP
                                                       /product="mature Tissue
                                                                                                                                                          MIPCYISSPDECLWMDWVTEKSINGHQAKFFACIKRSDGSCAWYRGAAPPKQEFLDIE
                                                                                                                                                                                                                       /db_xref="PID:g54802"
/db_xref="SWISS-PROT:P25785"
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/clone_lib="gtll"
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/etrain="BALB/c"
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Institute, 1-1 Kanokoden, Chikusa-ku, Na
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 gl141729
matrix metalloproteinase inhibitor.
Rattus norvegicus (tissue library: lambda gtl0) female mato mRNA.
Rattus norvegicus
Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata;
Eukaryotae; Eutheria; Rodentia; Sciurognathi; Myomorpha;
                                                                                     complete cds.
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                                                                                                          Rattus norvegicus
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Similarity 87.9%;
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Pred. No. 0.00e+00;
Mismatches 92;
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TCACCCAGAAGAAGAGCCTAAACCACAGGTACCAGATGGGCTGCGAGTGCAAGATCACAC
                                                            GAGATGGCAAGATGCACATTACCCTCTGTGACTTTATTGTGCCCTGGGACACGCTTAGCA
                                                                                                                                                                                                                                                     GGAATGACATCTATGGCAACCCCCATCAAGAAGGATTCAATATGAGATCAAGCAGATAAAGA 440
                                                                                                                                                                                                                                                                                                 tttgcaatgcagacatagtgatcagggccaaagcagtcaataagaaggaggtggactctg
                                                                                                                                                                                                                                                                                                                  TTTGCAATGCAGACGTAGTGATCAGGGCCAAAGCAGTGAGCGAGAAGGAGGTGGATTCCG
                                            ggaatggcaatatgcatatcaccctctgtgacttcatcgtgccctgggacaccctgagtg
                                                                                                       gtggggtctcgctggacattggaggaaaggaaggagtatctcattgcagggaaggccgagg
                                                                                                                         GCGGGGTCTCGCCTGGACGTTGGAGGAAAAGGAAGGAATATCTAATTGCAGGGAAGGCGGAAAG
                                                                                                                                                                      gcaacgacatctacggcaaccccatcaagcggattcagtatgagatcaagcagataaaga
                                                                                                                                                                                                        TGTTCAAAGGACCTGACAAGGACATCGAATTTATCTACACGGCCCCCTCCTCAGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                ggacgctgctcccccgggccgacgcctgcagctgctccccggtgcacccgcaacaggcgt 400
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 (bases 1 to 958)
Gibbons, K.L., O'Grady, R.L. and Piper, A.A.
Rat tissue inhibitor of metalloproteinases-2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished (1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               54.5%;
Similarity 88.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product="matrix metalloproteinase inhibitor'
869. .958
1 297 c 288 g 169 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="TIMP-2"
/function="tissue inhibitor
(type 2)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product="matrix metalloproteinase inhibitor"
/db_xref="pID:g1141730"
/db_xref="pID:g1141730"
/translatton="McAARSILFAGILLLATILRPADACSCSPVHPQQAFCNADVV
IRAKAVSEKEVDSGNDIYGNPIKRIQYEIKQIKMFKGPDKDIEFIYYAPSSAVCGVSL
DVGGKKEYLIAGKAESDGKMHITLCDFIVPNDTLSIYQKKSLNHRYQMGCECKITRCP
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209. .
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/sex-"female"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="TIMP-2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'gene-"TIMP-2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="mammary"
/tissue_lib="lambda gt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          organism="Rattus norvegicus"

db_xref="taxon:10116"
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Pred. No. 0.00e+00;
0; Mismatches 87
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                                                                   Local Similarity 89.2%;
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CCGCCATGGGCGCCGCGCCAGCCTCCGGCTGGCGCACGGCCTCCTGCTAGCCT 63
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Gene 117, 92347695
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 (bases 1 to 676)
Leco, K.J., Hayden, L.J., Sharma, R.R., Rocheleau, H., Greenberg, and Edwards, D.R.
Differential regulation of TIMP-1 and TIMP-2 mRNA expression normal and Ha-ras-transformed murine fibroblasts
Gene 117, 209-217 (1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryotae; mitochondr
Vertebrata; Eutheria;
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M93954
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                                                                                                                             162
                                                       Conservative
                                                                                                                                                                                                                                                                                                                        /strain="C3H"
/db_xref="taxon:10090"
/cell_line="C3H 10T1/2"
/cell_type="fibroblasts"
9. .671
                                                                                                                                                             /evidence-experimental
/product="TIMP-2"
/product="TIMP-2"
/db_xref="FID:9202054"
/translation="MGAARSLRLAHGLLLLASILRPADACSCSPVHPQQAFCNADVV
/translation="MGAARSLRLAHGLLLLASILRPADACSCSPVHPQQAFCNADVV
IRAKAVSEKEVDSGNDIYGNPIKRIQYEIKQIKMFKGPDKDIEFIYTAPSSAVCGVSL
DVGGKKEYLIAGKAEGDGKMHITLCDFIVPWDYLSITQKKSLHHRYQMCCECKITRCP
                                                                                                                                                      MIPCYISSPDECLWMDWVTEKSINGHQAKFFACIERSDGSCAWYRGAAPPKQEFLDIE
                                                                                                                                                                                                                                                                                               /gene="TIMP2"
9. :671
                                                                                                                                                                                                                                                   function="metalloproteinase
                                                                                                                                                                                                                                                                  /gene="TIMP2"
/codon_start=1
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                                                                                                                                                                                                  Cricetulus longicaudatus
Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata;
Vertebrata; Eutheria; Rodentia; Sciurognathi; Myomorpha;
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X75924
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Cricetinae; Cricetulus.
1 (bases 1 to 597)
                                                                                                                                                                                                                                                                   g414876
                                                                                      Submitted (02-NOV-1993) Y. Suzuki, 370-05 Akaiwa 2716, Chiyoda-machi,
                                                                                                                                                              Suzuki, Y.
                                                                                                                                                                                                                                                      Tissue inhibitor of metaro
                                                                                                               Direct Submission
                                                                                                                                                Unpublished
                                                                                                                                                                                                                                           long-tailed hamster
                                                                                                                                                                                                                                                                                           longicaudatus mRNA
                                                                                                                                     (bases 1 to 597)
          /organism="Cricetulus longicaudatus"
/db_xref="taxon:10030"
/clone_lib="chinese hamster ovary"
/clone="K1"
                                                                       Location/Qualifiers
'cell_type="ovary"
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                                                                                    Suntory Pharm-Tech Center,
Ohra-gun, Gumma, JAPAN
                                                                                                                                                                                                    Myomorpha;
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                                                                                                                                                                                                      Muridae;
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                 H.sapiens mRNA for tissue X54533 g37180 TIMP-2; tissue inhibitor
1 (bases 1 to 555)
Malik,K.T.A.
Direct Submission
                                                         human.
Homo sapiens
                                            Eukaryotae;
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larity 91.3%;
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/product="tissue inhibitor of metaro proteinase"
/db_xref="piD:g414877"
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IQYEIKQIKMFKGPDKDIEFIYTAPSSAVCGVSLDVGGKKEYLIAGKAEGDGKMHITL
CDFIVPNDTLSTTQKKSLNHRYQMGCECKITRCPNIPCYISSPDECLMNDWVYEKSIN
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                                mitochondrial eukaryotes; Metazoa; Chordata; Eutheria; Primates; Catarrhini; Hominidae; H
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Pred. No. 0.00e+00;
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                   TTCTTCGCCTGCATCAAGAGAAGTGACGGCTCCTGTGCGTGGTACCGCGGCGCGGCGCCCC
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                                                                                 GACGAGTGCCTCTGGATGGACTGGGTCACAGAGAAGAACATCAACGGGCACCAGGCCAAG
                                                                                                                                                                                     ATGGGCTGCGAGTGCAAGATCACGCGCTGCCCCATGATCCCGTGCTACATCTCCTCCCCG
ttcttcgcctgcatcaagagaagcgacggctcctgcgcctggtaccgcggagcagcaccc
                                                                                                                                                                  atgggctgtgagtgcaagatcactcgatgccccatgatcccatgctacatctcctctccg
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Malik,K., Sejima,H., Aoki,T. and Iwata,K.
Nucleotide sequence of a TIMP-II cDNA
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Chemical Industries, 530 Chokeiji, Takaoka City, Toyama 933, Japan
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547. .555
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/note="cloning primer-derived (3')"
148 c 159 g 101 t
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/product="Tissue inhibitor of metalloproteinases,
/db_xref="pID:937181"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /translation-"SPVHPQQAFCNADVVIRAKAVSEKEVDSGNDIYGNPIKRIQYEI
KQIKMFKGPEKDIEFIYTAPSSVVCGVSLDVGGKKEYLIAGKAEGDGKMHITLCDFIV
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/db_xref="taxon:9606"
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Pred. No. 0.00e+00;
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Vertebrata; Archosauria; Aves; Neognathae; Galliformes;
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Almes, R.T., Li,L., Weaver, B., Hawkes, S., Hahn, E.A. and Quigley, J.P.
Cloning, expression and characterization of chicken tissue
Inhibitor of metalloproteinase-2 (TIMP-2) in normal and transformed
chicken embryo fibroblasts
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/translation="MPGAALPSLLAWLAVLLLGRARPADACSCSPIHPQQAFCNADVV
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Vertebrata; Eutheria; Primates; Catarrhini; Hominidae; H
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/gene="TIMP-2"
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/db_xref="taxon:9606"
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/gene="TIMP-2"
837. .842
/gene="TIMP-2"
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/evidence=experimental
/evidence=experimental
/product="tissue inhibitor of metalloproteinases-2"
/product="tissue inhibitor of metalloproteinases-2"
/db_xref="pID:gl171893"
/translation="MGABARTIRLALGLLLPLLRPADACSCSPVHPQQAFCNADVVIR
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GGKKEYLIAGKAEGDGKMHITLCDFIVPMDTLSTTOKKSLNHRYQMGCECKITRCPMI
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/gene="TIMP-2"
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/gene="TIMP-2"
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U44384:195. .319,546. .853)
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|oin(U44381:2546. .2669,U44382:55. .155,U44383:84. .192,
|44384:195. .319,546. .743)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      jene="TIMP-2"
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Pred. No. 2.67e-128;
0; Mismatches 29;
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Release 3.0.5AA John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1997 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

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MPsrch_nn n.a. - n.a. database search, using Smith-Waterman algorithm

un on: Mon May 4 13:18:57 1998; MasPar time 143.73 Seconds 839.032 Million cell updates/sec

abular output not generated.

Description:
Perfect Score:
N.A. Sequence:
Comp: >Q06583 (1-1045) from n-geneseq.seq 1045

l attccggcttctatggagca......ctggacacagcatgaataaa 1045 taaggccgaagatacctcgt.....gacctgtgtcgtacttattt

Scoring table: TABLE default Gap 6

Nmatch STD : Dbase 0; Query 0

Searched: 159651 seqs, 57698962 bases x 2

Post-processing:

Database:

Minimum Match 0% Listing first 45 summaries

n-geneseq30
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part9 10:part10 11:part11 12:part12 13:part13 14:part14 15:part15 16:part16 17:part17 18:part18 14:part14 15:part15 16:part16 17:part27 23:part28 19:part19 20:part20 21:part21 22:part22 23:part23 24:part24 25:part25 26:part26 27:part27 28:part28 29:part29 30:part30 31:part31 32:part33 33:part33

"tatistics: Mean 9.000; Variance 5.747; scale 1.566

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES :

TIMP-2 Human g	7.9
1 005939	22 T34433
Human small tissue in 2.90e-	ssue in 2.90e-291 protein 6.30e-290 nature 1.21e-100 or of m 7.52e-34

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4444 5432 1	8 2 2 2 2 2 2 3 4 3 4 4 4 4 4 4 4 4 4 4 4	30 31 32	25 25 27 28	16 17 18 19 20 21 23
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312	11222212			15 15 15 13 13 13
Q70465 T76363 T76452 T76474 N60538	Q70468 Q70467 Q70469 Q70634 N60635 N60635 Q70465 Q70466	N81164 N81164 T76405 T76274	Q82741 Q82740 Q82746 Q51746 Q51746 T76405	T02359 Q82747 Q86744 Q06585 Q73094 Q73095 Q73095 Q73093
DNA nterl anti lial e enc		Base substituted E.co Base substituted E.co Human endothelin-1 an Human neutrophil elas	Chicken tissue inhibit Mouse tissue inhibito oligonucleotide probe Oligonucleotide probe Human endothelin-1 an	Human tissue inhibito TIMP-3 metalloprotein Synthetic fragment of Human metalloproteina Human metalloproteina Human metalloproteina
1.44e-06 1.44e-06 1.44e-06 1.44e-06 1.44e-06	1.26e-07 1.26e-07 4.28e-07 4.28e-07 4.28e-07 1.44e-06 1.44e-06	.67e	1.09e-13 4.01e-13 1.46e-12 2.45e-10 2.45e-10	4.93e-20 4.93e-20 4.93e-20 7.29e-19 7.99e-15 7.99e-15 7.99e-15

ALIGNMENTS

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Sequence 1045 BP; 219 A; 350 C; 311 G; 165 T;		2.001	tumours aiding clean excision, and in treatment of enphysema, Paget's	harvesting etc. The inhibitor may also be useful in encapsulating	during chemotherapy and radiation therapy, impurged bone marrow cell	The product has therapuetic use in inhibiting tumour dissemination	properties of naturally occurring metalloproteinase inhibitor.	expression system to give a product with all the biological	Creating 14; Fig. 1; Copp; Engineering a property of or only arvoting	rheumatold arthritis	encoding them, for treatment of tumour cell dissemination and	New metallo-proteinase inhibitor polypeptide(s) - and DNA		•		(CHIL-) CHILDREN'S HOSPITAL OF LA.	(AMGE-) AMGEN INC.	29-MAR-1990; US-501904.	19-MAY-1989; US-355027.	18-MAY-1990; 305433.	22-NOV-1990.	EP-398753-A.	/*tag= b	mat_peptide 367948	/*tag= a		Key Location/Qualifiers	Bos taurus.	scleroderma; cholesteatoma; ds.	Tumour; chemotherapy; cancer; Paget's disease; osteoporosis;	Sequence encoding bovine metalloproteinase inhibitor.	21-FEB-1991 (first entry)		Q06583 standard; cDNA; 1045 BP.	OLT 1

Query Match Best Local S Matches 104

/ Match 100.0%; Local Similarity 100.0%; hes 1045; Conservative

Score 1045; DB 1; Pred. No. 0.00e+00; 0; Mismatches 0;

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2-MAR-1989; US-355027.

2-MAR-1990; US-501904.

(AMGE-) AMGEN INC.
(CHIL-) CHILDRENS HOSPITAL LC.
BOONE TC, Declerck YA, Larring 94-343309/43.

"PSDB; R62768.

w metallo:pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New metallo:proteinase inhibitor, analogues and DNA - for treating tumour cell dissemination, rheumatoid arthritis and for large-scale recombinant inhibitor prodn.

Claim 12; Fig 1; 65pp; English.
073087 encodes R62768 bovine metalloproteinase inhibitor (MI), it may be used to inhibit tumour cell dissemination and for treating rheumatoid arthritis, dystrophic epidermolysis bullosa; emphysema and osteoporosis. The DNA may be used to detect MI gene disorders. sequence 1045 BP; 219 A; 350 C; 311 G; 165 T;
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EP-398753-A.
22-NOV-1990;
18-MAY-1990; 305433.
19-MAY-1989; US-355027.
29-MAR-1990; US-501904.
(AMGE-) AMGEN INC.
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                                                                                                    (CHIL-) CHILDREN'S HOSPITAL OF Langley KE, Boone TC, DeClerck WPI; 90-350481/47.
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scleroderma;
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Q06584;
21-FEB-1991 (f1
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Claim 12; Fig 2: 63pp; English.
Sequence may be used to transform a procaryotic or eukaryotic expression system to give a product with all the biological properties of naturally occuring metalloproteinase inhibitor.
                                                  New metallo-proteinase inhibitor polypeptide(s) encoding them, for treatment of tumour cell dis rheumatoid arthritis
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Sequence
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RESULT ID Q

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13-JUL-1995 (first entry)
Human metalloproteinase inhibitor; tumour cell dissem
Metalloproteinase inhibitor; tumour cell dissem
rheumatoid arthritis; dystrophic epidermolysis
ombhysema; osteoporosis; MI gene disorders; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          large-scale recombinant inhibitor prodn.

Claim 12; Fig 2; 65pp; English.

Claim 12; Fig 2; 65pp; E
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(CHIL-) CHICARENS HOSPITAL LOS ANGELES.
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19-MAY-1989; US-355027.
29-MAR-1990; US-501904.
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Pred. No. 0.00e+00;
0; Mismatches 78
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RESULT PLANT PROPERTY OF STREET 
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PT diagnosis, detection and purification of the diseases of the amino acid sequence determined. A probe was synthesised the amino acid sequence determined. A probe was synthesised of the amino acid sequence information. It was used to screen the amino acid sequence information. It was used to screen the classed upon the protein sequence information. It was used to screen the LambdaGem-4 cDNA library prepared from human melanoma cells. 239 consitives were identified from a total of 750,000 plaques screened. The clones clone pss38 was isolated and the nucleotide const of the clones. Clone pss38 was isolated and the nucleotide const of the cDNA insert was determined. The deduced amino acid sequence showed excellent agreement with that derived by directly constant of the TIMP-2 protein.

CS es also US7317407 and WO9010228.

CS es also US7317407 and WO9010250, R06894-R06895 and Q05938-Q05939.
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21-AUG-1990; 494796.
13-MAR-1990; 494796.
21-MAR-1989; US-32634.
17-JUL-1989; US-380431.
18-AUG-1989; US-39443.
18-AUG-1989; US-394453.
18-AUG-1989; US-494796.
(USSH ) NAT INST OF HEALTH.
Steller-Sevenson WG, Liotta
WPI; 90-290097/38.
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16-JAN-1991 (first entry)
Complete sequence of humam TIMP-2 from clone pSS38.
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llarity 90.1%;
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209 C; 201 G; 131 T;
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/product-part of TIMP-2
US7494796-A.
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21-AUG-1990: 494796.
21-MAR-1989; US-326334.
17-JUL-1989; US-380431.
17-JUL-1989; US-395453.
18-AUG-1989; US-494796.
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  Q05938 standard;
  Q05938;
  16-JAN-1991 (fir
                                                                                                                                                                                                                                                              16-JAN-1991 (first entry)
TIMP-2 metalloproteinase i
matrix metalloproteinase i
                                                                                                                                                                                                                                                                                                                                                        1009
        New matrix metallo-proteinase inhibitor - used to treat dise resulting from matrix metallo-proteinase activity and in diagnosis, detection and purificn.

Disclosure; Fig 6A; 54pp; English.

TIMP-2 was isolated from human melanoma cell-conditioned med the maino acid sequence determined. A probe was synthesised based upon the protein sequence information. It was used to
                                                                                                                                                                                                                                                       Synthetic.
                                                                                    P-PSDB; R06896
                                                                                             (USSH ) NAT INST OF HEALTH.
Stetler-Sevenson WG, Liotta
WPI; 90-290097/38.
                                                                                                                                                                                                                                                                                                                                                                                                   954
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Best Local S
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Homo sapiens.
J09000265-A.
07-JAN-1997.
22-JUN-1995;
22-JUN-1995;
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T64341;
21-MAY-1997 (fir
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brain tumour; malignant;
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Pred. No. 0.00e+00;
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Claim 1: Page 5; 5pp; Japanese.
Claim 1: Page 5; 5pp; Japanese.
The present sequence is that of the human small tissue inhibitor metalloprotease 2 (TIMP2) DNA. Expression of this sequence is negatively correlated with brain tumour malignancy, i.e. relative expression levels are: normal brain tissue > astrocytoma > anaplastic astrocytoma > glioblastoma. By determining the level of TIMP 2 expression in human brain tissue, the malignancy of cerebral tumours can be evaluated.

Sequence 671 BP; 177 A; 184 C; 196 G; 114 T;
Q05939 standard; DNA; 832 BP. Q05939; 16-DAN-1991 (first entry) TIMP-2 metalloproteinase inhibitor-encoding matrix metalloproteinase inhibitor; TIMP-2; Synthetic. Location/Qualifiers CDS 170..703
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llarity 89.8%;
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Pred. No. 2.90e-291;
0; Mismatches 59;
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Bisclosure, Fig 6B; 54pp; English.

TIMP-2 was isolated from human melanoma cell-conditioned media and the amino acid sequence determined. A probe was synthesised based upon the protein sequence information. It was used to screen a LambdaGem-4 cDNA library prepared from human melanoma cells. 239 positives were identified from a total of 750,000 plaques screened. Further analysis and screening with additional probes eliminated all but two clones (pSS15 and pSS18). Both were sequenced and found to encode CSC-21K (=TIMP-2), a novel metalloproteinase inhibitor. See also US7317407 and w00310228.

See also US7317407 and w00310228.

See also US7317407 and w00310228.

See also US7317407 and w00310228.
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Best Local Similarity
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US7494796.A.
21-AUG-1990.
13-MAR-1990; 494796.
21-MAR-1989; US-326334.
17-UUL-1989; US-396331.
18-AUG-1989; US-395443.
18-AUG-1989; US-395443.
18-ANR-1990; US-494796.
(USSH ) NAT INST OF HEALTH.
Steller-Sevenson WG, Liotta L
WPI, 90-290097/38.
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               cctccaacgcccctgtggccaactgcaaaaaagcctccaagggtttcgac-ggtccagc
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Pred. No. 6.30e-290;
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C double-stranded DNA) which comprises one of the 7837 "GS" sequences
C given in T19001-T26837 and which is able to hybridise to part of
C human genomic DNA, cDNA or mRNA is claimed. The GS (Gene Signature)
C sequences were obtained from 3'-directed cDNA libraries prepared
C from various human tissues; synthesis of cDNA was initiated from the
C 3'-end of mRNA by using poly(T) as the sole primer. Since the 3'-
C untranslated sequence is unique to a particular mRNA species, almost
C all the 3'-oriented cDNAs hybridise with specific mRNAs. Each library
C is constructed so as to reflect accurately the relative abundance of
C different mRNAs in the particular tissue from which it was derived.
The appearance frequency of a given GS in a cDNA library can be
C determined (esp. using primers and probes derived from the GS
C sequences) as a means of diagnosing abnormal cell function or for
C recognising different cell types.
S Sequence 302 BP; 75 A; 96 C; 75 G; 53 T;
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Best Local :
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T34433 standard; (
T34433;
09-OCT-1996 (fir:
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WPI; 95-206931/27.
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11-NOV-1994; J01916.
12-NOV-1993; JP-355504.
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WO9514772-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human gene signature
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(OKUB/) OKUBO K.
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library; diagnosis;
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Fig 1; 49pp; Eng
A full-length cDNA clone
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA encoding human tissue inhibitor of metalloproteinase-4 (TIMP-4) useful to treat, e.g. cancer, arthritic diseases, bone resorption
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (HUMA-) HUMAN GENOME
Greene JM, Rosen CA;
WPI; 96-300644/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tissue inhibitor of metalloproteinase-4 cDNA.
Tissue inhibitor of metalloproteinase-4; TIMP-4; cancer;
bone resorption; Paget disease; gene therapy; diagnosis;
                                                                                       499
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llarity 60.9%;
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0; M
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d. No. 7.52e-34;
Mismatches 220
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Tissue inhibitor of metalloproteinase; TIMP-4; Incyte Clone No.
metalloprotease; tumour metastasis; angiogenesis; growth; osteo
osteoporosis; pulmonary emphysema; periodontal disease; diabeti
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P-PSDB; W25603
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WPI; 97-350238/32.
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18-JAN-1996; US-588163.
(INCY-) INCYTE PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /product= TIMP-4
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01-JUL-1997.
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Pred. No. 7.52e-34;
0; Mismatches 220
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osteoarthritis;
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Natriuretic protein receptor B - for diagnosis and treatment of kidney failure, heart failure, hyperaldosteronism, glaucoma etc. Claim 3; Fig 1; 49pp; English.

The sequence was derived from the DNA encoding natriuretic peptide receptor B, NPRB, having guanyl cyclase (GC) activity and protein kinase activity. The DNA can be inserted into expression vectors for the protein, of the protein, opt. after being mutated to produce NPRB analogues. The protein has a mol wt. of 115 kD (calculated MrRB nalogues. The protein (or variants) can be used in treatment of 114,952).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peptide
/label=
                                                                                                                                                                                            (GETH ) GENENTECH INC.
Chang M, Goeddel D, Lowe
WPI; 91-036711/05.
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/label=
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Human Natriuretic Peptide Receptor B.
NPRB; ANP; BNP; CNP; kidney failure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /label
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                                                                                                                                                                                N-PSDB; Q10324.
                                                                                                                                                                                                                                                             23-JUN-1989;
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Modified -site 349..351
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Modified -site 277...
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Modified -site 244..246
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Modified -site 195..197
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Modified -site 161..163
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Modified -site 35..3
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                                                                                                                                                                                                                                                                             22-JUN-1990;
                                                                                                                                                                                                                                                                                                 10-JAN-1991
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T 13
Q10572 standard; DNA; 1047
Q10572;
Q10572;
Q9-APR-1991 (first entry)
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nes 73; Conser
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                                                                                                                                             dnndvykvntngdaymvvsgnngrng
                                                                                                                                                                                gcggcgcggaagcgagagctggctgggggggggggggg-cgagcgagtgcgcgcgcgcgcggg 34
                                                                                                                                                                                                                                                     cacacaaactttcttggctctaggtcgcggggtgcagcgaggaggcgcgggggcgcggctg
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                                        ΒP
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                NPRB analogues. The protein has a mol wt. of 115 kD (calculated Mr-114,952). The protein has a mol wt. of 115 kD (calculated Mr-114,952). The protein (or variants) can be used in treatment of natrituretic peptide disorders, and also to isolate peptides using affinity chromatography. Antibodies with affinity for NDDD can also be Drend
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Natriuretic protein receptor B - for diagnosis and treatment of kidney failure, heart failure, hyperaldosteronism, glaucoma etc. Claim 3; Fig 1; 49pp; English.
The sequence was derived from the DNA encoding natriuretic peptide receptor B, NPRB, having guanyl cyclase (GC) activity and protein kinase activity. The DNA can be inserted into expression vectors for the prodn. of the protein, opt. after being mutated to produce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chang M, Goeddel D, Lowe WPI; 91-036711/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human Natriuretic Peptide Receptor B.
                                                                                                                                                                                                                                                                                                                                                          Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "GC and protien kinase activity"
Modified -site 24..26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hyperaldosteronism; glaucoma; guanyl cyclase
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Modified -site 161...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /label= N-glycos_site 
Modified -site 35..37
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23-JUN-1989; US-370673.
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fodified -site 600..602
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Modified -site 349...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           label N-glycos_site lodified -site 277...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 label= N-glycos_site lodified -site 244...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'note- "binds natriuretic peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              label- extracellular domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'label= mature NPBR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'label= signal sequence
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nes 71; Conse
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hgvtgnvvmdknndrntdnvnwamgdndsgdnnnaahysganknnwwtgrnnnwvkgann
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                                      gcgcccgcggagtgccgtccagaccagcgcggccccggcggagaggggggcgcccgagc
                                                                                                               gccgcccccagccagctctcgcttccgcgccgccagccgcgccccgcgcc-tcctcgct 117
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                                                                                                                                                                                                                                                                                                                                                          87 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ö
                                                                                                                                                                                                                                                                            247; Mismatches
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                                                                                                                                                                                                                                                                                               Pred.
                                                                                                                                                                                                                                                                                                                                                          15 C;
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                                                                                                                                                                                                                                                                                                                   DB 2;
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                                                                                                                                                                                                                                                                              509;
                                                                                                                                                                                                                                                                                                                                                          G;
                                                                                                                                                                                                                                                                                                                   Length 1047;
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29-FEB-1996 (first entry)
TIMP-3 clone Timp3HCM-3.
TIMP-3; tissue inhibitor metalloproteinase type three; cancer; inflammation; emphysema; embryo implant modulation; arthritis; dystrophic epidermolysis bullosa; peridontal disease; ulcer; scleroderma; vulnerary; gene therapy; ss.
Example 4; Page 69-70; 112pp; English. cDNA clone Timp3HCM-3 (T02361) codes for a natural variant (R04217) of tissue inhibitor metalloproteinase 3 (TNMP-3), lack: a portion of the N-terminus of the mature protein in comparison with the clone Timp3clone 7 product (R04215). Timp3HCM-3 was isolated from a human colonic mucosa cDNA library using primers
                                                                                                                                                                                                                               WO9509918-A1.
13-APR-1995.
04-OCT-1994; U11241.
06-OCT-1993; US-134231.
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T02361 standard; DNA; 820
                                                                                                          cell disorders, etc
                                                                                                                     New tissue inhibitor metallo:proteinase cancer, inflammation, emphysema, embryo
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WPI; 95-155259/20.
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A, Silbiger SM;
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Best Local
                                                  prodn. General e.g. of emphysema.
                                                                              cell disorders, etc. Example 4; Page 67-68; 112pp; English. Example 4; Page 67-68; 112pp; English. cDNA clone Timp3clone2 (T02360) codes for a natural variant (R84216) of tissue inhibitor metalloproteinase 3 (TIMP-3), lacking part of the signal peptide of the Timp3clone 7 product (R84215). The cDNA clone was isolated from a human 20 and 24 wk foetal kidney cDNA library using primers based on TIMP sequences. The cDNA is pref. expressed in Escherichia coli for use in recombinant TIMP-3 prodn. Genes coding for TIMP may also be useful for gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                            TIMP-3; tissue inhibitor metalloproteinase type three; cancer; inflammation; emphysema; embryo implant modulation; arthritis; dystrophic epidermolysis bullosa; peridontal disease; ulcer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     based on TIMP sequences. The cDNA is pref. expressed in Escherichia coli for use in recombinant TIMP-3 prodn. Genes coding for TIMP may also be useful for gene therapy e.g. of emphysema. Sequence 820 BP; 204 A; 225 C; 188 G; 203 T;
                                                                                                                                                                                                    New tissue inhibitor metallo:proteinase cancer, inflammation, emphysema, embryo
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larity 60.9%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                               vulnerary;
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Mismatches 107;
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Search completed: Mon May 4 13:25:12 1998 Job time: 375 secs.

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MPsrch_nn n.a. - n.a. database search, using Smith-Waterman algorithm

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llar output not generated.

Description: Perfect Score: N.A. Sequence: >006583 (1-1045) from n-geneseq.seq 1045

1 attccggcttctatggagca......ctggacacagcatgaataaa 1045 taaggccgaagatacctcgt.....gacctgtgtcgtacttattt

Scoring table: TABLE default Gap 6

Nmatch

STD:

Searched: 1610801 seqs, 607859669 bases x 2

Dbase 0; Query 0

Post-processing: Minimum Match 0% Listing first 45 summaries

Database: embl-est

1:em_est1 2:em_est2 3:em_est3 4:em_est4 5:em_est5 6:em_est6 7:em_est8 8:em_gss 9:em_est13 genbank-est

Database:

10:gb_est1 11:gb_est2 12:gb_est3 13:gb_est4 14:gb_est5 15:gb_est6 16:gb_est7 17:gb_est8 18:gb_est9 19:gb_est10 20:gb_est11 21:gb_est 22:gb_gs 23:gb_est12 24:gb_est13 25:gb_est14 26:gb_est15 27:gb_est16 28:gb_est17 29:gb_est18 30:gb_est19 31:gb_est20

tistics: Mean 10.886; Variance 2.366; scale 4.602

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	. •	Ouerv			,		
NO	. Score		Length DB	BB	Ħ	Description	Pred. No.
n	400	38.3	556	28	AA400097	zu69f08.s1 Soares test	0.00e+00
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	354	33.9	583	28	AA400168	Soares	: 0.00e+00
	351	33.6	531	18	AA183361	mo96g07.rl Stratagene	0.00e+00
a	5 344	32.9	467	25	AA486280		0.00e+00
n	6 326	31.2	464	29	AA700818	zi69f06.sl Soares feta	0.00e+00
	7 325	31.1	757	18	AA183676	mo98c08.rl Stratagene	0.00e+00
	8 322	30.8	429	24	AA462734	•	0.00e+00
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	2 293	28.0	532	16	W49721	zc43g09.rl Soares sene	
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97SN1787 Rice Immature	Homo	yb04h03.r2 Homo sapien	acenta c	zi86f05.sl Soares feta	.sl NCI_C	lus	.rl Soare	.rl Soares m	vi01f09.rl Barstead mo	. r 1	yh25c12.s1 Homo sapien	8	Mouse 3'-directed cDN	6 Cerebe	.rl Homo	.rl Homo	.s1 Homo	.sl Homo	1 Homo s	ŗ	7.rl Guay	.s1	.rl Soar	.rl Homo	.rl Homo sa	.s1 NCI_	9 Pineal gl	acent	s1 Hon	EST01918 Homo sapiens	EST02095 Homo sapiens
. 56e	5.80e-79									9.59e-242	2.99e-279	1.14e-288	1.48e-290	1.93e-292	4.20e-298	4.20e-298	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

FEATURES source	TITLE JOURNAL COMMENT	ORGANISM REFERENCE AUTHORS	ACCESSION NID KEYWORDS SOURCE	DEFINITION	RESULT 1
Contact: Wilson RK Washington University School 4444 Forest Park Parkway, B Tel: 314 286 1800 Email: est@watson.wustl.edu This clone is available royy IMAGE Consortium (info@image Insert Length: 869 Std Eri seq primer: -41m13 fwd. ET I coation/Qualifier 1.556 //organism-"Homo say //note-"Vector: pT? polylinker; Site_1	Krizman,D., Kucaba,T., Lacy Martin,J., Moore,B., Schell Theising,B., White,Y., Wyli. MashU-NCI human EST Project Unpublished (1997)	Eukaryotae, Metazoa; Primates; Catarrhini; 1 (bases 1 to 556) Hillier, L., Allen, M.,		zu69f08.sl s	AA400097
yton University School of M yton University School of M Drest Park Parkway, Box 850 14 286 1800 14 286 1810 14 286 1810 14 286 1810 15 866 1800 15 867 1800 1800 1800 1800 16 18 18 18 18 18 18 18 18 18 18 18 18 18	Kucaba,T., Koore,B., Sc White,Y., uman EST Pro (1997)	Metazoa; Ch tarrhini; H to 556)	MAN);.	Soares testi	ALI 556 bp
of Mecox 8501, alty-freeling cor: 0.0 cor: 0	Krizman,D., Kucaba,T., Lacy,M., Le,N., Lennon,G., Martra,M., Martin,J., Moore,B., Schellenberg,K., Steptoe,M., Tan,F., Theising,B., White,Y., Wylie,T., Waterston,R. and Wilson,R. WashU-NCI human EST project Unpublished (1997)	Metazoa; Chordata; Vertebrata; Mammalia; Eutheria; Matarrhini; Hominidae; Homo. to 556) Allen,M., Bowles,L., Dubuque,T., Geisel,G., Jost,S.,		testis NHT Homo sapiens	ALIGNMENTS mrna
St. Louis, MO 6: St. Lo	Lennon,G., A steptoe,M., 1 ston,R. and F	ıta; Mammalia le,T., Geisel		Homo sapiens cDNA clone 743271	EST
contact the information. a modified cDNA	Tan,F., Wilson,R.	; Eutheria;		ne 743271 3'	09-NOV-1997

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EST.
                                                                                                                                 zc43c09.rl Soares senescent fibroblasts NbHSF Homo sapiens cDNR clone 325072 5' similar to gb:S48568 TISSUE INHIBITOR OF METALLOPROTEINASES II PRECURSOR (HUMAN);
Homo sapiens
Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata;
Vertebrata; Eutheria; Primates; Catarrhini; Hominidae; H
1 (bases 1 to 518)
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/clone="743271"
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WashU-Merck EST Project
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: est@watson.wustl.edu
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/tlssue_type="senescent fibroblast"
/lab_host="DH10B (ampicillin resistant)"
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AGGATATAGAGTTTATCTACACGGCCCCCCCCCCCGGCAGTGTGTGGGGGTCTCGCTGGACG 338
                               accccatcaagcggattcagtatgagatcaagcagataaagatgttcaagggacctgatc 538
                                                                                                                                                                                    389;
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Hillier,L., Allen,M., Bowles,L., Dubuque,T., Geisel,G., Jos:
Hillier,L., Allen,M., Bowles,L., Lennon,G., Marra,M.,
Krizman,D., Kucaba,T., Lacy,M., Le,N., Lennon,G., Marra,M.,
Martin,J., Moore,B., Schellenberg,K., Steptoe,M., Tan,F.,
Theising,B., White,Y., wylie,T., Waterston,R. and Wilson,R.
Theising,B., White,Y., wylie,T., Waterston,R. and Wilson,R.
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Fax: 314 286 1810
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larity 91.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                              went through one round of normalization to Cot5,
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/clone="743271"
                                                                                                                                                                                                                                                                                                                                                                                        constructed by Bento Soares /db_xref="GDB:5930425"
                                                                                                                                                                                                                                                                             /lab_host="DH10B"
151 c 163
                                                                                                                                                                                                                                                                                                                  /sex="male"
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Pred. No. 0.00e+00;
0; Mismatches 35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T., Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and
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                                                                                                                                                                                                                                                                                                                                                                                                                                          WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata Vertebrata; Eutheria; Rodentia; Sciurognathi; Muridae;
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                                                                                                                                                                                                                                                                                                                                      This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                      Tel: 314 286 1800 Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Marra M/Mouse EST Project
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                                                                             /note-"Vector: pBluescript SR-; Site_1: EcoRI; Site_2: xhoi; Cloned unidirectionally. Primer: Oligo dT. Average insert size: 1.0 kb; Uni-ZAP XR Vector; -5' adaptor sequence: 5' GAATTCGGCACGAG 3' -3' adaptor sequence: 5' GCTGGAGTTTTTTTTTTTTTT 3'"
                                                         organism="Mus musculus"/strain="Inbred CD-1"
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sex="males"
                   clone_lib-"Stratagene
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EST.
                                                                                                                                                                                                                                                                     ab35908.s1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone 842846 3' similar to gb:S48568 TISSUE INHIBITOR OF METALLOPROTEINASES II PRECURSOR (HUMAN); AA486280
Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. 1 Tel: 314 286 1800
                                                                             1 (bases 1 to 467)
Hilller,L., Allen,M., Bowles,L., Dubuque,T., Gei
Kucaba,T., Lacy,M., Le,N., Lennon,G., Marra,M.,
Moore,B., Schellenberg,K., Steptoe,M., Tan,F., ,
White,Y., Wylie,T., Waterston,R. and Wilson,R.
Washd-Merck EST project 1997
                                                                                                                                                                     Homo
                                        Contact: Wilson RK
                                                                    Unpublished (1997)
                                                                                                                                                                                   Eukaryotae; mitochond:
Vertebrata; Mammalia;
                                                                                                                                                                                                               Homo sapiens
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/lab_host="SOLR (kanamycin resistant)"
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                                                                                                       zi69f06.s1
                                                         METALLOPROTEINASES AA700818
                                                                       zi69f06.s1 Soares fetal liver spleen clone 436067 3' similar to gb:S48568 METALLOPROTEINASES II PRECURSOR (HUM!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Seg primer: -41ml3 fwd. ET from Amersham
High quality sequence stop: 451.
 Homo
                                                                                                                                      AA700818
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Similarity 90.1%;
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/lab_host="SOLR (kanamycin res
complement(<1...>467)
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/clone="842846"
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/sex="female"
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                                                                                            GCACTCGCAGCCCATCTGGTACCTGTGGTTCAGGCTCTTCTTCTGGGTGGTGCTCAGGGT 373
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Hillier, L., Allen, M., Bowles, L., Dubuque, T., Geisel, G., Jos Krizman, D., Kucaba, T., Lacy, M., Le, N., Lennon, G., Marra, M., Martin, J., Moore, B., Schellenberg, K., Steptoe, M., Tan, F., Theising, B., White, Y., Wylle, T., Waterston, R. and Wilson, R. Washu-NCI human EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              406;
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Fax: 314 286 1810
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(bases 1 to 464)
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/note="Organ: Liver and Spleen; Vector: pT7T3D (Pharmacia)
/note="Organ: Liver and Spleen; Vector: pT7T3D (Pharmacia)
with a modified polylinker; Site_1: Pac I; Eco RI;
with a modified polylinker; Site_1: Pac I; Stee=2: Eco RI;
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This is a subtracted version of the original Solares fetal
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/clone="436067"
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/lab_host="DH10B (ampicillin resistant)"
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Waterston,R.
The WashU-HHMI Mouse E
ACCCCATCAAGAGGATTCAGTATGAGATCAAGCAGATAAAGATGTTCAAAGGACCTGACA 377
                                                                          tgatcagggccaaagcagtcaataagaaggaggtggactctggcaacgacatctacggca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mo98c08.rl Stratagene mouse testis (#937308) Mus muscullus cDNA clone 567758 5' similar to gb:S48568 TISSUE INHIBITOR OF METALLOPROFEINASES II PRECURSOR (HUMAN); gb:X62622 M.muscullus TIMP-2 mRNA for tissue inhibitor of metalloproteinases, (MOUSE);.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Marra M/Mouse EST Project
Washbr-HHMI Mouse EST Project
Washbagton University School of Medicinep
4444 Forest:Park Parkway, Box 8501, St. L
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Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M
Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,
Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. an
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High quality sequence stop: 444.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tel: 314 286 1800
Fax: 314 286 1810
Email: mouseest@watson.wustl.edu
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Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA183676
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                                                                                                                                                                            Similarity
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llarity 84.1%;
Conservative
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                                                                                                                                                                                                                                                     /dev_stage="10-12 week old"
/lab_host="SOLR (kanamycin resistant)"
<1. .>757
198 c 210 g 163 t 2 oth
                                                                                                                                                                                                                                                                                                                                                                       /db_xref="taxon:10090"
/clone="567758"
                                                                                                                                                                                                                                                                                                                                   /sex="males"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          organism="Mus musculus"/strain="Inbred CD-1"
                                                                                                                                                                                                                                                                                                                                                     /clone_lib="Stratagene mouse testis (#937308)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mitochondrial eukaryotes; Metazoa; Eutheria; Rodentia; Sciurognathi; P
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Pred. No. 0.00e+00;
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v) for further
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JOURNAL
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Marra, M., Hillier, L., Allen, M., Bowles, M., Dietrich, N., Dubuc, Geisel, S., Kucaba, T., Lacy, M., Le, M., Martin, J., Morris, M., Schellenberg, K., Steptoe, M., Tan, F., Underwood, K., Moore, B., Theising, B., Wylle, T., Lennon, G., Soares, B., Wilson, R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 vf91a09.rl Soares mouse mammary gland NbMMG Mus musculus cDNA clone 851128 5' similar to gb:X62622 M.musculus TIMP-2 mRNA for tissue inhibitor of metalloproteinases, (MOUSE); AA462734 g2187625
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WashIngton University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. L
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The WashU-HHMI Mouse EST Project Unpublished (1996)
                                                                                                                                                                                       Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL;
TMAGE Consortium (info@image.llnl.gov) for further:
                                                                                                                                                                                                                                                                                                                             Contact: Marra M/Mouse EST Project
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Vertebrata; Mammalia; Eutheria; Rodentia;
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314 286 1810
                                                                                                                                        quality sequence stop:
              /organism="Mus musculus"
/strain="C57BL/6J"
/note-"Vector: p77T3D-Pac (Pharmacia) with
polylinker; Site_1: Not I; Site_2: Eco RI;
was primed with a Not I - oligo(dT) primer
ocation/Qualifiers
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            Eucaryotae; Metazoa;
Eutheria; Primates; C
1 (bases 1 to 434)
                                                                                     human clone=70287 library=Stratagene placenta (#937225)
vector=pBluescript SK host=SOLR cells (kanamycin resistant)
primer=M13RP1 Rsitel=EcoRI Rsite2=XhoI Placental tissue from a
Caucasian male. Cloned unidirectionally. Primer: Oligo dT. Average
insert size: 1.2 kb; Uni-ZAP XR Vector; 5' adaptor sequence:
5'-GARTTCGGCACGAG-3', 3' adaptor sequence:
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larity 88.8%;
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                                                                                                                                                                                                                                3.r1 Homo sapiens cDNA clone 70287 5' similar to gb:S48568 INHIBITOR OF METALLOPROTEINASES II PRECURSOR (HUMAN).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T 3']; double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned int the Not I and Eco RI sites of the modified pTTT3 vector. RNA provided by Dr. Minoru Ko, Wayne State Univ. Library constructed and normalized by Bento Soares and M.Fatima
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u></u>
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/clone_lib="Soares mouse
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /sex="male"
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                             Catarrhini;
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Catarrhini; Hominidae;
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Pred. No. 0.00e+00;
0; Mismatches 46
Dubuque, T.,
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Elliston, K.,
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JOURNAL
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Best Local :
                 ORGANISM
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                                                                                                                                                                                                                                                                                                                                                                                                                           248 GAGCCTGAACCACAGGTACCAGATGGGCTGCGAGTGCAAGATCACGCGCTGCCCCATGAT 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68 TGAGAAGGATATAGAGTTTATCTACACGGCCCCCTCCTCGGCAGTGTGTGGGGTCTCGCT 127
                                                                                                                                                                 10
                                                                                                                                                                                                                                          TGCGTTGT 434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ggacattggaggaaagaaggagtatctcattgcagggaaggccgaggggaatggcaatat
                                                                                                                                                                                                                                                                                      ACATCAACGGGCACCAGGGCAAGTTNTTTCGCCTTGNATCAAGAGA-GTGACGGCTNCTG 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                        gcatatcaccctctgtgacttcatcgtgccctgggacaccctgagtgccacccagaagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cgcctggt 898
                                                                                                                                                                                                                                                                       acatcaacggacaccaggccaagttctt-cgcct-gcatcaagagaagcgacggctcctg
                                                                                                                                                                                                                                                                                                                                 cccatgct-acatctcctctccggacgagtgcctctggatggactgggtcacggagaaga 832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 High quality sequence stops: 391
Source: IMAGE Consortium, LLNL
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (infodimage.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4444 Forest Park Parkway, Box 8501, St. J
Tel: 314 286 1800
                                                                         zc43c09.sl Soares senescent fibroblasts NbHSF Homo sapiens cDNA clone 325072 3' similar to gb:S48568 TISSUE INHIBITOR OF METALLOPROTEINASES II PRECURSOR (HUMAN);. w49694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Other_ESTs: yb05d08.s1
Contact: Wilson RK
WashU-Merck EST Project
Washington University S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Holman,M., Hultman,M., Kucaba,T., L
Parsons,J., Rifkin,L., Rohlfing,T.,
Waterston,R., Williamson,A., Wohldm
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                                                                                                                                                   W49694
               Homo sapiens
                                                         g1337959
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Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata;
                                uman.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/clone="70287"
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Pred. No. 0.00e+00;
0; Mismatches 38
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JOURNAL
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Best Local Similarity 88.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTATTCATCGCTGTTTCCAGGAAGGGATGTCAGAGCTGGACCAGTCGAAACCCTTGGAG
GTGTCCCAGGGCACGATGAAGTCACAGAGGGTGATGTGCATCTTGCCGTCCCCCTCGGCC
                                                                                                                          TTGCACTCGCAGCCCATCTGGTACCTGTGGTTCAGGCTCTTCTTCTGGGTGGTGCTCAGG
                                                                                                                                                                                      tccagaggcactcgtccggagaggagatgtagcattgggatcattggggcatcgagt-gatc
                                                                                                                                                                                                                                                                                                              tgatgcaggcgaagaacttggcctggtgtccgttgatgttcttctccgtgacccagtcca
                                                           ttgcactcacagcccatctggtacctgtggttcaggctcttcttctgggtggcactcagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 (bases 1 to 489)
Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Hillier,L., Clark,N., Dubuque,T., Le,M., Lennon,G., Marra,M. Holman,M., Rucaba,T., Le,M., Lennon,G., Marra,M. Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston,R., Williamson,A., Wohldmann,P. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          403;
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WashU-Merck EST Project
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Location/Qualifiers
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/clone="325072"
/clone_lib="Soares senescent fibroblasts NbHSF"
/tissue_type="senescent fibroblast"
/lab_host="DH10B (ampicillin resistant)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (1995)
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Pred. No. 0.00e+00;
0; Mismatches 47
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Fax: 314 286 1810
Email: estéwatson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
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                                                                                                                                                                                                                                                     1 Similarity 88.2% 403; Conservative
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1 (bases 1 to 489)

Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J., Rifkin,L., Rohlfing,T., Soarse,M., Tan,F., Parsons,J., Rifkin,L., Rohlfing,T., Soarse,M., Tan,F., Parsons,J., Waterston,R., Williamson,A., Wohldmann,P. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 zc43g09.sl Soares senescent fibroblasts NDHSF Homo clone 325120 3' similar to gb:S48568 TISSUE INHIBIT
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Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,K. Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Rohlfing,T., Soares,M., Tan,F., Rohlfing,T., Soares,M., Tan,F., Rohlfing,T., Rohl
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WashU-Merck EST Project
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clone 325120 5' similar to gb:S48568 TISSUE INHIBITOR
METALLOPROTEINASES II PRECURSOR (HUMAN);.
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Seq primer: mob.REGA+ET
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: est@watson.wustl.edu
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4444 Forest Park Parkway,
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Eutheria; Archonta; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 327)

Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M.,
Holman,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M.,
Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F.,
Trevaskis,E., Waterston,R., Williamson,A., Wohldmann,P. and
                                                                                                                                                                   CDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT7T3 vector. Library went through one round of normalization. Library constructed by Bento Soares and M.Fatima Bonaldo.
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Deuterostomia; Chordata; Vertebrata; Gnathostomata; Os
Sarcopterygii; Choanata; Tetrapoda; Amniota; Mammalia;
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/clone_lib="Soares senescent fibroblasts NbHSF"
/tissue_type="senescent fibroblast"
/lab_host="DH10B (ampicillin resistant)"
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High quality sequence stops: 187
Source: IMAGE Consortium, LLNL
This clone is available royalty-free through LLNL;
IMAGE Consortium (info@image.llnl.gov) for further i
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EST.
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The WashU-Merck EST
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Adams, M.D., Dubnick, M., Kerlavage, A.R., Utterback, T.R., Nagle, J.W., Fields, C. ar Sequence identification of 2,375 human k Nature 355 (6361), 632-634 (1992)
                                                      Eukaryotae: Metazoa; Eumetazoa; Bilateria; Coelomata; Deuterostomia; Chordata; Vertebrata; Gnathostomata; Os Sarcopterygli; Choanata; Tetrapoda; Amniota; Mammalia; Eutheria; Archonta; Primates; Catarrhini; Hominidae; H 1 (bases 1 to 394)
                                                                                                                                                             human clone=HFBCK35 library=Fetal brain, Stratagene (cat#936206) vector=LambdaZAP-II primer=M13 Forward 17-18 wk gestation, femal oligo-dT + random primed cDNA synthesis; lambdaZAP-II vector, 1.
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Adams, M.D., Dubnick, M., Kerlavage, A.R., Moreno, R., Ke Utterback, T.R., Nagle, J. W., Fields, C. and Venter, J.C. Sequence identification of 2,375 human brain genes Nature 355 (6361), 632-634 (1992)
                                                                                                                                                                                                                                                                     EST01918 Homo sapiens cDNA clone HFBCH66 similar to Metalloproteinase inhibitor. M85403
                                                                                         Eukaryotae; Metazoa; Eumetazoa; Bilateria; Coelomata;
Deuterostomía; Chordata; Vertebrata; Gnathostomata; Ost
Sarcopterygií; Choanata; Tetrapoda; Amniota; Mammalia;
Eutheria; Archonta; Primates; Catarrhini; Hominidae; Ho
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932 Clopper Road, Gaithersburg, MD 20
Tel: 3018699056
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Location/Qualifiers
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tistics:	Database: Database:	Post-processing:	Searched:	Nmatch STD:	Scoring table:	Title: Description: Perfect Score: N.A. Sequence: Comp:	ular output n	MPsrch_nn n.a.	Releas	
Mean 11.040; Variance 6.438; scale 1.715	<pre>emb153 1:em_in 2:em_or 3:em_om 4:em_ov 5:em_pl 6:em_htg 7:em_huml 8:em_hum2 9:em_ba 10:em_ro 11:em_un 12:em_v1 13:em_pat genbank105 14:gb_ro 15:gb_om 16:gb_ov 17:gb_in 18:gb_pl 19:gb_ba 20:gb_st 21:gb_v1 22:gb_ph 23:gb_sy 24:gb_un 25:gb_pat 26:gb_htg 27:gb_prl 28:gb_pr2</pre>	Minimum Match 0% Listing first 45 summaries	436399 seqs, 764661465 bases x 2	Dbase 0; Query 0	TABLE default Gap 6	<pre>>Q06584 (1-1033) from n-geneseq.seq 1033 1 attccggcccgccgtcccccaacactcatccccggaattc 1033 taaggccgggcaggggggttgtgagtaggggccttaag</pre>	Mon May 4 13:25:32 1998; MasPar time 1188.01 Seconds 1329.775 Million cell updates/sec output not generated.	- n.a. database search, using Smith-Waterman algorithm	Release 3.0.5AA John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1997 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd	

Result No.

Score

Match

Length DB

ID

Description

Pred. No.

100.0 95.7 95.7 59.1 59.1 59.1 58.9 58.9 58.9 52.3

1009

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HUMTIMP2
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RNU14526
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S72594
MUSTIMP2
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Human metalloproteinas
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tissue inhibitor of me
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CGRNAMP S68860

sig_peptide

DP* 255. .332

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	CDS	gene	 FEATURES	JOURNAL MEDLINE	REFERENCE AUTHORS TITLE	ACCESSION NID KEYWORDS SOURCE ORGANISM	DEFINITION	RESULT 1		C 444	21	40 40						24 25 26					
/note="metalloproteinase inhibitor precursor" /codon_start=1 /codon_start=1 /db_xref="GDB:GOD-119-615" /db_xref="GDB:GOD-119-615" /db_xref="JDD:g307195" /db_xref="JDD:g307195" /translation="MGAAARTLRLALGLLLLATLLRPADACSCSPVHPQQAFCNADVV /translation="MGAAARTLRLALGLLLLATLLRPADACSCSPVHPQQAFCNADVV /translation="MGAAARTLRLALGLLLLATLLRPADACSCSPVHPQQAFCNADVV /translation="MGAAARTLRLALGLLLATLLRPADACSCSPVHPQQAFCNADVV /translation="MGAAARTLRLALGLLLLATLLRPADACSCSPVHPQQAFCNADVV /translation="MGAAARTLRLALGLLLATLLATLLRPADACSCSPVHPQQAFCNADVV /translation="MGAAARTLRLALGLLLATLLATLLRPADACSCSPVHPQQAFCNADVV /translation="MGAAARTLRLALGLLLATLLATLLRPADACSCSPVHPQQAFCNADVV /translation="MGAAARTLRLALGLLLATLLATLLRPADACSCSPVHPQQAFCNADVV /translation="MGAAARTLRLALGLLATLLATLLATLLATLLATLLATLLATLLATLLAT	755 917 255 917 /gene="TIMP"		K.E.Langley, 23-FEB-1990, for release after publication. Location/Qualifiers	. Natl. Acad. Sci. U.S.A. 87 (7), 2800-2	35) on,M.J., De Clerck,Y expression of a meta	M32304 g187522 metalloproteinase inhibitor. metalloproteinase inhibitor. Human fetal aorta, cDNA to mRNA. Homo sapiens Eukaryotae; mitochondrial eukaryotes; Me Vertebrata; Eutheria; Primates; Catarrhi	Human metalloprote	HUMMET 1035 bp mRNA PRI 07-JAN-1995	ALIGNMENTS	3.6 2429 15 DOGADCYC Canis familiaris adeny 1.34e- 3.6 2429 15 DOGADCYC Canis familiaris adeny 1.34e- 3.6 174877 26 AC002060 *** SEQUENCING IN PROG 1.34e-	3.8 84539 28 HSABLGR3 Human proto-oncogene t 1.09e- 3.8 238582 26 AC003059 *** SEQUENCING IN PROG 1.09e-	3.8 215 25 128278 Sequence 5 from patent 1.09e-	4.3 170309 26 AC003061 *** SEQUENCING IN PROG 1.73e-	5.5 4591 14 MMTIMP3MI M.musculus (Balb/C) TI 3.50e- 5.5 7218 25 166494 Sequence 14 from paten 3.50e-	5.5 1292 14 MUSTIMP3X Mouse metalloproteinas 3.50e- 5.5 1483 14 MUSTIMP3A Mouse tissue inhibitor 3.50e-	6.3 2042 15 BTU77588 Bos taurus tissue inhi 3.96e 6.3 4587 28 HSU14394 Human tissue inhibitor 3.96e 6.5 4587 28 HSU14394 Human tissue inhibitor 3.96e	6.3 1240 28 HSU67195 Human tissue inhibitor 3.96e 6.3 1284 28 S78453 TIMP-3-tissue inhibito 3.96e 6.3 1041 27 HSMTGGF H samiens mig-5 gene 3.96e-	Homo sapiens H.sapiens TIM Human tissue	10.0 675 25 150867 Sequence 1 from patent 7.14e- 7.0 7218 25 166494 Sequence 14 from paten 1.49e-	10.2 1189 28 HSU76456 Human tissue inhibitor 3.26e-	12.6 539 28 HUMANTIMPA Human tissue inhibitor 3.5e-65 10.8 224 28 HUMANTIMPA Human tissue inhibitor 6.31e-53	32.3 2691 28 HUMANTIMP1 Human tissue inhibitor 1 77e-	34.9 814 16 AF004664 Gallus dallus tissue i 2.83e-22

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J. Biol. Chem. 265 (23), 13933-13938 (1990)
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y submitted by W.G.Stetler-Stevenson,
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DVGGKKEYLIAGKAESGKMHITICDDIYPMPTLSTTQKKSLMHRYQMCGCKITTCK
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Rattus norvegicus
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Eukaryotae; Eutheria; Rodentia; Sciurognathi; N
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Cook,T.F., Burke,J.S.,
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/codon_start=1
/product="tissue inhibitor of metalloproteinases-2"
/product="tissue inhibitor of metalloproteinases-2"
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MIPCYISSPDECLMMDWVTEKSINGHQAKFFACIKRSDGSCAWYRGAAPPKQEFLDIE
                                                                                                                                                  /clone_lib="UMR 106-01 library
/cell_line="UMR 106-01 rat osto
/cell_type="osteoblast"
/tissue_type="bone"
                                                                                                                                                                                                                               /strain="Sprague-Dawley"
/db_xref="taxon:10116"
                                                                                                            note-"TIMP-2"
                                                                                                                                                                                                                  /clone="pRT4"
                                                                                                                                                                                                                                                            organism="Rattus norvegicus"
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                           CACCCAGAAGAAGACCTAAACCACAGGTACCAGATGGGCTGCGAGTGCAAGATCACACG
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Rattus
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Purification, cDNA cloning, and developmental changes in the steady-state mRNA level of rat testicular tissue inhibitor of
                                                                                                                                                                               Eukaryotae;
Vertebrata;
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/db_xref="PID:91881814"
/db_xref="PID:91881814"
/translation="MGAAARSLRLALGLLLLATLLRPADACSCSPVHPQQAFCNADVV
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MIPCYISSPDECLMMDMVTEKSINGHQAKFFACIKRSDGSCAWYRGAAPPKQEFLDIE
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219. .881
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Pred. No. 0.00e+00;
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/product="tissue inhibitor of metalloproteinase type 2"
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/db_xref="pID:9619233"
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295. .876
/gene="TIMP2"
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969. .974
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217. .879
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/cell_type="fibroblast"
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/tissue_lib="lambda gtll"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /gene="TIMP2"
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/db_xref="taxon:10090"
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90.7%;
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inhibitor of metalloproteinases, Type 2
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x62622 S37984
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Similarity 90.7%;
700; Conservative
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Cancer Center Research Institute, 1–1 Kanokoden, Chikusa-ku, Na
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus
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Vertebrata; Eutheria; Rodentia; Sciurognathi; Myomorpha; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cloning and sequencing of the cDNA inhibitor of metalloproteinase-2 ene 114 (2), 291-292 (1992)
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/db_xref="SWISS-PRO7: P25785"
/translation="MGAARD: PART: PA
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305. .886
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                                                                                      Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata; Vertebrata; Eutheria; Artiodactyla; Ruminantia; Pecora; Bovidae; Bovinae; Bos.
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aggagtttctcgacatcgaggacccataagcaggcctccaacgcccctgtggccaactgc
                                                                          CCTGCATCAAGAGAAGCGACGGCTCCTGCGCCTGCTACCGCGGAGCAGCAGCACCCCCCAAGC
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                                AGGAGTTTCTGGACATCGAGGACCCGTAAGCAGGCCACCAGGACTCCTGGGGCCAATTG-
                                                                                                                        gcctctggatggactgggtcacagagaagaacatcaacgggcaccaggccaagttcttcg
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/translation="MGAAARSLPLAFCLLLLGTLLPRADACSCSPVHPQQAFCNADIV/translation="MGAAARSLPLAFCLLLLGTLLPRADACSCSPVHPQQAFCNADIVIRAKAVNKKEVDSGMDIYGNEIKRIQYEIKQIKMFKGPDQDIEFIYTAPAAAVCGVSLDIGGKKEYLIAGKABGNGNMHITLCDFIVPWDTLSAYQKKSLNHRYQMGCECKITRCP
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/db_xref="taxon:9913"
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                                                             GCCCGCCATGGGCCGCCGCGCCCCAGCCTCCGGCTGGCCGCCTCGGCCTCCTGCTGCTGCT
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691; Conse
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Vertebrata; Eutheria;
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larity 90.8%;
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//db_xref="piD:gil41730"
//db_xref="piD:gil41730"
//tanslation="MGAARSLELAGLLLLATLLRPADACSCSPVHPQQAFCNADVV
//translation="MGAARSLELAGLLLLATLLRPADACSCSSPVHPQQAFCNADVV
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MIPCYISSPDECLWMDWVTEKSINGHQAKFFACIKRSDGSCAWYRGAAPPKQEFLDIE
                                                                                                                                                                                             /product="matrix metalloproteinase 869.958 g 169 t
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209. .286
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/function="tissue
(type 2)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="mammary"
/tissue_lib="lambda gt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /cell_type="carcinoma"
/sex="female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Rattus norvegicus"
/db_xref="taxon:10116"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'gene="TIMP-2"
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'function="tissue inhibitor of matrix metalloproteinase
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Eutheria; Rodentia; Sciurognathi; )
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Pred. No. 0.00e+00;
0; Mismatches 65;
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                                                                                                                                                                                  and Edwards, D.R.

Differential regulation of TIMP-1 and TIMP-2 mRNA expression normal and Ha-ras-transformed murine fibroblasts Gene 117, 209-217 (1992)
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/strain="c3H"
/db_xref="taxon:10090"
/cell_line="C3H 10T1/2"
/cell_type="fibroblasts"
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                                               aggacccataagcagg
                                                                       AGGACCCATAAGCAGG
                                                                                              acggctcctgtgcgtggtaccgcggcgcgcgcccccaagcaggagtttctcgacatcg
                                                                                                                      ccacccagaagaagagcctgaaccacaggtaccagatgggctgcgagtgcaagatcacgc
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larity 91.6%;
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DVGGKKEYLIAGKAEGDGKMHITLCDFIVPWDTLSITQKKSLNHRYQMGCECKITRCP
MIPCYISSPDECLMMDWVTEKSINGHQAKFFACIERSDGSCAMYRGAAPPKQEFLDIE
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/product-"TIMP-2"
/db_xref="PID:9202054"
/translation-"MGAAARSLRLAHGLLLLASLLRPADACSCSPVHPQQAFCNADVV
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                                                                                                                                                                        TACACGGCCCCCTCCTCGGTAGTGTGTGGGGGTCTCACTGGACGTTGGAGGAAAGAAGGAA
                                                                                                                                                                                                                                      CAGTATGAGATCAAGCAGATAAAGATGTTCAAAGGGCCTGAGAAGGATATAGAGTTTATC
                                                                                                                                                                                                                                                                                     tccccggtgcacccgcaacaggcgttttgcaatgcagatgtagtgatcagggccaaagcg
                                                                                                                                                                                                                                                                                                                                                                    TCTCCAGTGCACCCACAACAGGCGTTTTGCAATGCAGATGTAGTGATCAGGGCCAAAGCG
ATGGGCTGCGAGTGCAAGATCACGCGCTGCCCCATGATCCCGTGCTACATCTCCTCCCCG
                            atcgtgccctgggacaccctgagcaccaccagaagaagagcctgaaccacaggtaccag
                                             ATCGTGCCCTGGGACACCCTGAGCACCCCAGAAGAAGAGCCTGAACCACGAGGTACCAG
                                                                                          tatctcattgcaggaaaggccgaggggacggcaagatgcacatcaccctctgtgacttc
                                                                                                                                                         tacacggccccctcctcggcagtgtgtggggtctcgctggacgttggaggaaagaaggaa
                                                                                                                                                                                                                         cagtatgagatcaagcagataaagatgttcaaagggcctgagaaggatatagagtttatc
                                                                                                                                                                                                                                                                                                                     GTCAGTGAGAAGGAAGTGGACTCTGGAAACGACATTTATGGCAACCCTATCAAGAGGATC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              H.sapiens mRNA for tissue inhibitor of metalloproteinases, Type-2.
x54533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (20-AUG-1990) Malik K.T.A., Chemical Industries, 530 Chokeiji, Tal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
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Vertebrata;
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rtebrata; Eutheria; Primates; Catarrhini; Hominidae; H
(bases 1 to 555)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       147
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llarity 98.7%;
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547. .555
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148 c 159 g 101 t
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /translation="SPVHPQQAFCNADVVIRAKAVSEKEVDSGNDIYGNPIKRIQYEI
KQIKMFKGPEKDIEFIYTAPSSVVCGVSLDVGGKKEYLIAGKAEGDGKMHITLCDFIV
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/db_xref="PID:g37181"
/db_xref="SWISS-PROT:p16035"
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Pred. No. 0.00e+00;
0; Mismatches 7
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kaoka City, Toyama 933, Japan
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                                                                                                                       GCCTGCAGCTGCCCCCGGTGCACCCGCAACAGGCGTTTTGCAATGCAGACGTAGTGATC
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atcaagaggatccagtatgagatcaagcagataaagatgttcaaagggcctgagaaggat
                                                      agggccaaagcggtcagtgagaaggaagtggactctggaaacgacatttatggcaaccct
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Cricetulus longicaudatus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (02-NOV-1993) Y. Suzuki, Suntory Pharm-Tech Cen 370-05 Akaiwa 2716, Chiyoda-machi, Ohra-gun, Gumma, JAPAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
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9. .590
9. .590
a 163
                                                                                                                                                                                                                                                                                        /product="tissue inhibitor of metaro proteinase"
/db_xref="piD:9414877"
/db_xref="piD:9414877"
/translation="RACSCSPVHPQQAFCNADVVIRAKAVSEKEVDSGNDIYGNPIKR
IQYEIKQIKMFKGPDKDIEFITTAPSSAVCGVSLDVGGKKEYLIAGKAEGDGKMHITL
CDFIVPWDTLSTTQKKSLNHRYQMGCECKITRCPMIPCYISSPDECLWMDWVTEKSIN
GHQAKFFACIKRSDGSCAWYRGAAPPKQEFLDIEDP"
                                                                                                                                                                                                                                                                                                                                                                                                        /cell
                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Cricetulus longicaudatus"
/db_xref="taxon:10030"
/clone_lib="chinese hamster ovary"
                                                                                                                                                                                                                                                                                                                                                                             /codon_start=3
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Genomic, 970 nt].
                           36.4%;
L Similarity 100.0%;
376; Conservative
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De Clerck,Y.A., Darville,M.I., Eeckhout,Y. and Rousseau,G.G.
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                                                                                                                                                                                                                /note="metalloproteinase-2 tissue inhibitor"
/gene="timp-2"
                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/db_xref="taxon:9606" ;
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                                                                                                                                      translation="MGAAARTLRLALGLLLLATLLRPADACSCSPVHPQQAFCNADVG
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                           Score 376; DB 28;
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g2352472
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gallus gallus (TIMP-2) mRNA,
                                                                                                                                                                                                                                                                                                                                                                                                                     Aimes, R.T., Li, L., Weaver, B., Hawkes, S., Cloning, expression and characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                   Phasianidae; Phasianinae; Gallus.
1 (bases 1 to 814)
Aimes, R.T., Li,L., Weaver, B., Haw
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17. .670
          /translation="MPGAALPSLLAWLAVLLLGRARPADACSCSPIHPQQAFCNADVV
IRAKRYSAKEYDSGNDIYGNPIKRIQYEYKQIKMFKGPDQDIEFIYTAPSTEYCGQPL
DTGGKKEYLIAGKSEGDGKMHITLCDLVATWDSVSPTQKKSLNQRYQMGCECKISRCL
                                                                    precursor"
                                                                                  /function="matrix metalloproteinase inhibitor"
/codon_start=1
/product="tissue inhibitor of metalloproteinase-2
SIPCFVSSSDECLWTDWAMEKIVGGRQAKHYACIKRSDGSCAWYRGMAPPKQEFLDIE
                                                                                                                                                                                       /dev_stage="10
                                                                                                                                                                                                                           organism="Gallus gallus'
                                                                                                                              gene-"TIMP-2"
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Matches 484; Conservative
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                                                                                                                                                                                                                                          500 ATCCCCTGCTTCGTCTCCTCCGGATGAGTGCCTCTGGACAGACTGGGCGATGGAGAAG 559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             496
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916 gcaggcc 922
                                                                                      620 GCCTGGTACCGCGGCATGGCCCCCCCGGAAGCAGTTTCTCGACATCGAGGACCCCTAA 679
                                                                                                                                                                                                                                                                                                                                                                       616 atgcacatcaccctctgtgacttcatcgtgccctgggacaccctgagcaccacccagaag
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200 TATGGGAACCCCATCAAGCGAATCCAGTACGAAGTGAAGCAGATGATGATTTAAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              316 cgcccggccgacgcctgcagctgctccccggtgcacccgcaacaggcgttttgcaatgca 375
                                                                     856 gcgtggtaccgcggcgcgcgcccccaagcaggagtttctcgacatcgaggacccataa 915
                                                                                                                                                                                                                                                                                                                                                                                          380 ATGCACATCACGCTGTGTGACCTGGTTGCCACCTGGGACTCGGTGAGCCCCACCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 320 CTGGACACAGGAGGTAAGAAGGAGTACCTGATTGCAGGCAAATCCGAGGGCGATGGCAAG 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            260 CCCGACCAGGACATCGAATTCATCTACACGGCGCCGTCCACCGAGGTGTGTGGGCAGCCT 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              436 tatggcaaccctatcaagaggatccagtatgagatcaagcagataaagatgttcaaaggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCGACC 686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cctgagaaggatatagagtttatctacacggccccctcctcggcagtgtgtgggggtctcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     176
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/gene="TIMP-2"
95. .676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="TIMP-2"
/product="tissue inhibitor of metalloproteinase-2"
/product="tissue inhibitor of metalloproteinase-2"
/product="tissue inhibitor of metalloproteinase-2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 361; DB 16; Length 81 Pred. No. 2.83e-229; 0; Mismatches 123; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 814;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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Search completed: Mon May 4 14:13:19 1998 Job time: 2867 secs.

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(FM)	
*	
* (TM)	,

Release 3.0.5AA John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1997 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch_nn n.a. - n.a. database search, using Smith-Waterman algorithm

: no r ular output not generated. Mon May 4 14:13:39 1998; MasPar time 1063.28 Seconds 1181.104 Million cell updates/sec

Description:
Perfect Score:
N.A. Sequence:
Comp:

>Q06584 (1-1033) from n-geneseq.seq 1033

1 attccggccgccgtccccc......aacactcatccccggaattc 1033 taaggccgggcggcaggggg.....ttgtgagtaggggccttaag

Scoring table: TABLE default Gap 6

Nmatch STD : Dbase 0; Query 0

1610801 seqs, 607859669 bases x 2

Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

1:em_est1 2:em_est2 3:em_est3 4:em_est4 5:em_est5 6:em_est6 7:em_est8 8:em_gss 9:em_est13 genbank-est embl-est

Database:

Database:

10:gb_est1 11:gb_est2 12:gb_est3 13:gb_est4 14:gb_est5 15:gb_est6 16:gb_est7 17:gb_est8 18:gb_est9 19:gb_est10 20:gb_est11 21:gb_sts 22:gb_gss 23:gb_est12 24:gb_est13 25:gb_est14 26:gb_est15 27:gb_est16 28:gb_est17 29:gb_est18 30:gb_est19 31:gb_est20

tistics: Mean 10.965; Variance 2.456; scale 4.464

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.

SUMMARIES

Result		Ouerv				•	
No.	Score	Match	Match Length DB	8	Ð	Description	Pred. No.
c 1	545	52.8	556	28	AA400097	zu69f08.sl Soares test	0.00e+00
N	463	44.8	518	16	W49684	zc43c09.rl Soares sene	0.00e+00
c 3	.459	44.4		25	AA486280	ab35g08.s1 Stratagene	0.00e+00
0 4	448	43.4		29	AA700818	z169f06.sl Soares feta	0.00e+00
a 5	438	42.4		16	W49694	zc43c09.sl Soares sene	0.00e+00
o 6	436	42.2		16	W49722	zc43g09.sl Soares sene	0.00e+00
7	425	41.1		28	AA400168	zu69f08.rl Soares test	0.00e+00
80	385	37.3	•	10	T48826	yb05d08.rl Homo sapien	0.00e+00
9	385	37.3		16	W49721	zc43g09.rl Soares sene	0.00e+00
c 10	373	36.1	430	10	T53335	ya88b08.s1 Homo sapien	0.00e+00
11	365	35.3	531	18	AA183361	mo96g07.rl Stratagene	0.00e+00
12	360	34.8	394	12	M85579	EST02095 Homo sapiens	0.00e+00
c 13	346	33.5	386	28	AA627637	nq51c01.s1 NCI_CGAP_Co	0.00e+00
•							

c	0	0 0	0 00	00	a a .
41 42 44 45	36	33222 3422 3543 3543 3543 3543 3543 3543	225422	19 20 21	14 15 16 17
156 152 145 144	206 203 195 173	233 2267 2236 224 210	291 288 287 287	307 303 302	344 326 320
		25. 8 25. 8 25. 8 21. 9 21. 7			
		331 10 351 10 390 11 281 19 229 19 273 27 369 25			
T50090 L AA518518 W11774 L HSC20F061 L HSC39A111					AA462734 AA183676 R68647 R68697 R68691
yb04h03 sl Homo sapien v101f09,rl Barstead mo mb20b01.rl Soares mous H. sapiens partial cDN H. sapiens partial cDN	.s1 NCI_CGAP_Br lacenta cDNA 5' 3'-directed cDN .r2 Homo sapien .r1 Zebrafish I	rI Homo sapien rI Homo sapien rI Homo sapien rI GuayWoodfor 6 Cerebellum II 5 Soares mous rI Soares whum sI Soares feta	fomo sapien l, Human Ge leal gland fomo sapien	8 Homo sapiens .sl Homo sapien 7 Homo sapiens	vf91a09.rl Soares mous mo98c08.rl Stratagene y114a03.sl Homo sapien y114a03.rl Homo sapien yh51f02.rl Homo sapien
2.60e-221 4.27e-214 1.66e-201 1.03e-199 1.03e-199	0.00e+00 0.00e+00 0.00e+00 2.82e-292 4.08e-252 4.07e-223	0.00e+00 0.00e+00 0.00e+00 0.00e+00 0.00e+00 0.00e+00 0.00e+00	0.00000	0.00e+00 0.00e+00 0.00e+00	0.00e+00 0.00e+00 0.00e+00 0.00e+00 0.00e+00

ALIGNMENTS

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KEYWORDS
SOURCE
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                                                                                                                                                                                                                                                                                                       999t99t9ctcagggtgtccccagggcacgatgaagtcacagagggtgatgtgcatcttgc
                                                                                                                                                                                                                                                                                                                                                                                                          ctgtgacccagtccatccagaggcactcgtccggggaggaggatgtagcacgggatcatgg
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g1337958
             EST
                                                        zc43c09.rl Soares senescent fibroblasts NbHSF Homo sapiens cDNA clone 325072 5' similar to gb:S48568 TISSUE INHIBITOR OF
                                                                                                     W49684
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human
                                                   METALLOPROTEINASES
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150 c 164
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/clone="743271"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone_lib="Soares testis NHT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Laboratories, Inc.,
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99.5%;
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                                                  PRECURSOR
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                                               (HUMAN);.
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AUTHORS
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Matches 50
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           301 GGGTCACAGAGAAGAACATCAACGGGCACCAAGGCCAAGTTCTTCGCCTGCATCAAGAGA 360
                                                               722
                                                                                               241
                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                               482 agatgttcaaagggcctgagaaggatatagagtttatctacacggccccctcctcggcag
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                                                                                                                                                                                                                                                                                         61
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                                                       GCACCAGCCAGAAGAAGAGCCTGAACCACAGGTACCAGATGGGCTGCGAGTGCAAGATCA
                                                                                                                                                                                                       AGGGGGACGCAAGATGCACATCACCCTCTGTGACTTCATCGTGCCCTGGGACACCCTGA
                                                                                                                                                                                                                                                                     TGTGTGGGGTCTCGCTGGACGTTGGAGGAAAGAAGGAATATCTCATTGCAGGANANGCCG
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gggtcacagagaagaacatcaacgggcacca-ggccaagttcttcgcctgcatcaagaga
                                                                                                                       gcaccaccagaagaagagcctgaaccacaggtaccagatgggctgcgagtgcaagatca
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Wilson RK
WashU-Merck EST Project
WashIngton University School of Medicine
4444 Forest Park Parkway, Box 8501, St. I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Vertebrata; Eutheria; Primates; Catarrhini; Hominidae; Home 1 (bases 1 to 518)
Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M., Holman, M., Hultman, M., Kucaba, T., Le, M., Lennon, G., Marra, Parsons, J., Rifkin, L., Rohlfing, T., Soares, M., Tan, F., Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The WashU-Merck EST Project
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3'], double-stranded cDNA was size selected, ligated to ECO RI adapters (Pharmacia), digested with Not I and Cloned into the Not I and ECO RI sites of a modified pT/T3 vector (Pharmacia). Library went through one round of normalization to a Cot = 5. Library constructed by Bento Soares and M.Fatima Bonaldo."

/db_xref="taxon:9606"
/clone="325072"
/clone="325072"
/clone_tib="Soares senescent fibroblasts NDHSF"
/tissue_type="senescent fibroblast"
/lab_host="DH10B (ampicillin resistant)"
                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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Pred. No. 0.00e+00;
0; Mismatches 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hillier, L., Allen, M., Bowles, L., Dubuque, T., Geisel, G., Jos Kucaba, T., Lacy, M., Le, N., Lennon, G., Marra, M., Martin, J., Moore, B., Schellenberg, K., Steptoe, M., Tan, F., Theising, B., White, Y., Wylie, T., Waterston, R. and Wilson, R. Washd-Merck EST Project 1997
                                                                                                  466;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Seq primer: -41ml3 fwd. ET from Amersham
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4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Wilson RK
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Hillier,L., Allen,M., Bowles,L., Lennon,G., Marra,M.,
Krizman,D., Kucaba,T., Lacy,M., Le,N., Lennon,G., Marra,M.,
Martin,J., Moore,B., Schellenberg,K., Steptoe,M., Tan,F.,
Theising,B., White,Y., Wylie,T., Waterston,R. and Wilson,R.
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Washington University Scho
4444 Forest Park Parkway,
Tel: 314 286 1800
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: est@watson.wustl.edu
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went through one round of normalization.
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/db_xref="GDB:1335836"
                               (Pharmacia), digested with Pac I and cloned into the Pac and Eco RI sites of the modified pT7T3 vector. Library went through one round of normalization. Library constructed by Bento Soares and M.Fatima Bonaldo."
                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/note="Organ: Liver and Spleen; Vector: pT7T3D (Pharmacia)
/note="Organ: Liver and Spleen; Vector: pT7T3D (Pharmacia)
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This is a subtracted version of the organization of the organiza
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MashU-Merck EST Project
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. I
Tel: 314 286 1800
                                                                                                                                 Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata; vertebrata; Eutheria; Primates; Catarrhini; Hominidae; Homo 1 (bases 1 to 489)
Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M., Holman, M., Kucaba, T., Le, M., Lennon, G., Marra, Parsons, J., Rifkin, L., Rohlfing, T., Soares, M., Tan, F., Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P. and
                                                                                                                                                                                                                                                                                                                     2C43C09.s1 Soares senescent fibroblasts NbHSF Homo sapiens cDNA clone 325072 3' similar to gb:S48568 TISSUE INHIBITOR OF METALLOPROTEINASES II PRECURSOR (HUMAN);
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/lab_host="DH10B (ampicillin resistant)"
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/tissue_type="senescent fibroblast"
/lab_host="DH108 (ampicillin resistant)"
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Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata; Vertebrata; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 48)
Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M. Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston,R., Williamson,A., Wohldmann,P. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                   462;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Wilson RK
WashIngton University School of Medicine
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. 1
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: est@watson.wustl.edu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone_lib="Soares senescent fibroblasts
/tissue_type="senescent fibroblast"
/lab_host="DH1OB (ampicillin resistant)"
complement(<1 >489)
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/clone="325120"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 436; DB 16;
Pred. No. 0.00e+00;
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REFERENCE
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Best Local :
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607
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       726 gcgcgtgatcttgcactcgcagcccatctggtacctgtggttcaggctcttcttctggg-
                                                                                                    Match 41.18;
Local Similarity 100.08;
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                                                                                     425;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Insert Length: 869    Std Error: 0.00
Seq primer: -28ml3 rev2 ET from Amersham
High quality sequence stop: 493.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Insert Length: 869 Std Error: 0.00
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Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Wilson RK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hillier,L., Allen,M., Bowles,L., Dubuque,T., Geisel,G., Jos
Krizman,D., Kucaba,T., Lacy,M., Le,N., Lennon,G., Marra,M.,
Martin,J., Moore,B., Schellenberg,K., Steptoe,M., Tan,F.,
Theising,B., White,Y., Wylie,T., Waterston,R. and Wilson,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryotae; Metazoa; Chordata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
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                                                                                     Conservative
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polylinker; Site_1: Not I; Site_2: Eco RI; lst strand cDNA
was prepared from mRNA obtained from Clontech
Laboratories, Inc., and primed with a Not I - oligo(dT)
                                                                                                                                                                                                                                                                                                             went through one round of normalization to Cot5, ar
constructed by Bento Soares and M. Fatima Bonaldo
/db_xref="GDB:5930425"
                                                                                                                                                                                                                                                                                                                                                                       Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not and Eco RI sites of the modified pT/T3 vector. Library
                                                                                                                                                                                                                                                                     /db_xref="taxon:9606"
/clone="743271"
                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                             _dab_
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                                                                                 Score 425; DB 28;
Pred. No. 0.00e+00;
0; Mismatches 0;
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                                                                                                                                                Contact: Wilson RK
WashU-Merck EST Project
WashIngton University Schoo
4444 Forest Park Parkway, B
Tel: 314 286 1800
Fax: 314 286 1810
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                                                                                                                                                                                                                                                                                                                                                                                                          human clone=70287 library=Stratagene placenta (#937225)
vector=pBluescript SK host=SOLR cells (kanamycin resistant)
primer=M13RPl Rsitel=EcoRI Rsitel=XhoI generate tissue from a
Caucasian male. Cloned unidirectionally. Primer: Oligo dT. Average
insert size: 1.2 kb; Uni-ZAP XR Vector; 5' adaptor sequence:
5'-GAATTCGGCACGAC-3'; 3' adaptor sequence:
                                                                         High quality sequence stops: 391
Source: IMAGE Consortium, LLNL
This clone is available royalty-free through LLNL;
IMAGE Consortium (info@image.linl.gov) for further i
                                                                                                                                                                                                                                                                         yb05d08.rl Homo sapiens cDNA clone 70287 5' similar to gb:S48568 TISSUE INHIBITOR OF METALLOPROTEINASES II PRECURSOR (HUMAN).
                                                                                                                                                                                                                                       Waterston, R., Williamson, A., WashD-Merck EST Project Unpublished (1995).
Other_ESTs: yb05d08.s1
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                                                                                                                                    Email: est@watson.wustl.edu
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          /organism="Homo sapiens"
/clone="70287"
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WashIngton University School of Medicine
WashIngton University School of Medicine
4444 Forest Park Parkway, Box 8501, St. 1
Tel: 314 286 1800
Fax: 314 286 1810
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                                                                                                                                                                                                                                      aaaaaaagcct-ccaagggtttcgact 972
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           485;
human clone-68727 library-Stratagene placenta (#937225) vector-pBluescript SK- host-SOLR cells (kanamycin resistant) primer--2hml3 Rsitel-EcoRI Rsite2-XhoI Placental tissue from a Caucasian male. Cloned unidirectionally. Primer: Oligo dT. Average
                                                                                                                    ya88b08.s1 Homo sapiens cDNA clone 68727 3' similar to gb:S48568 TISSUE INHIBITOR OF METALLOPROTEINASES II PRECURSOR (HUMAN).
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llarity 95.7%;
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/clone="325120"
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/note="Vector: p
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/tissue_type="senescent fibroblast"
/lab_host="DH10B (ampicillin resistant)"
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407; Conser
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Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M.,
Holman,M., Fulthman,M., Kucaba,T., Le,M., Lennon,G., Marra,M.
Parsons,J., Rifkin,L., Rohlfing,T., Tan,F., Trevaskis,E.,
Waterston,R., Williamson,A., Wohldmann,P. and Wilson,R.
           mo95g07.rl Stratagene mouse testis (#937308) Mis musculus cDNA clone 567612 5' similar to gb:s48568 TISSUE INHIBITOR OF METALLOPROTEINASES II PRECURSOR (HUMAN); gb:X63622 M.musculus TIMP-2 mRNA for tissue inhibitor of metalloproteinases, (MOUSE);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Source: IMAGE Consortium, LLNL free through LLNL; contact the This clone is available royalty free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
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Washington University Sch
4444 Forest Park Parkway,
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Unpublished (1995)
Other_ESTs: ya88b08.rl
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Eutheria; Primates; Catarrhini; Hominidae;
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5'-GAATTCGGCACGAG-3'; 3' adaptor sequence:
5'-CTCGAGTTTTTTTTTTTTTTTT-3'.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tel: 314 286 1800
Fax: 314 286 1810
AA183361
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High qality sequence stops:
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llarity 97.4%;
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Pred. No. 0.00e+00;
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CTAATTGCAGGAAAGGCAGAAGGAGATGCCAAAGATGCACATTACCCTCTGTGACTTCATT
                                                                                                                                   TATGAGATCAAGCATATAAAGATGTTCAAAGGACCTGACAAAGACATCGAGTTTATCTAC
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                                             acggccccctcctcggcagtgtgtggggtctcgctggacgttggaggaaagaaggaatat
                                                                                                                   tatgagatcaagcagataaagatgttcaaagggcctgagaaggatatagagtttatctac
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                                                                                ACGGCCCCTCTTCAGCAGTGTGCGGGGTCTCGCTGGACGTTGGAGGAAAGAAGGAGTAT
                                                               443;
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EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T., Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Washington University School of MedicineP
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Vertebrata; Eutheria; Rodentia; Sciurognathi; Muridae;
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larity 88.4%;
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/clone="567612"
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/lab_host="SOLR (kanamycin resistant)"
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/strain="Inbred CD-1"
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                                                                                                                                                                      1 ATGCACATCACCCTCTGTNACTTCATCGTGCCCTGGGACACCCCTGAGCACCCACCCAGAAG
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                                                                                                                                                                                                                        l Similarity
386; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Kerlavage AR
The Institute for Genomic Research
932 Clopper Road, Gaithersburg, MD 20
Tel: 3018699056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human clone=HFBCK35 library=Fetal brain, Stratagene (cat#936206) vector=LambdaZAP-II primer=M13 Forward 17-18 wk gestation, female; oligo-dT + random primed cDNA synthesis; lambdaZAP-II vector, 1.0kb
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Utterback,T.R., Nagle,J.W., Fields,C. and
Sequence identification of 2,375 human bra
Nature 355 (6361), 632-634 (1992)
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Sarcopterygii; Choanata; Tetrapoda; Amniota; Mammalia;
Eutheria; Archonta; Primates; Catarrhini; Hominidae; H
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Location/Qualifiers
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363; Conservation
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                                                                                                                                                                                                                                                                                                                                                                                                                    High quality sequence stop:
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Trace considered overall poor quality Seq primer: -40ml3 fwd. ET from Amersham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDNA Library Preparation: M. Bento Soares, Ph.D. CDNA Library Arrayed by: Greg Lennon, Ph.D. DNA Sequencing by: Washington University Genome Clone distribution: NCI-CGAP clone distribution found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Robert Strausberg, Ph.D. Tel: (301) 496-1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 (bases 1 to 386)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anat
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AA627637
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Primates; Catarrhini; Hominidae; Homo
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                                                                                                                                                                                              /note-*Organ: colon; Vettor: pT7T3D-Pac (Pharmacia) with a modified polylinker; 1st strand cDNA was prepared from RER+ colon tumor, and was then primed with a Not I oligo(dT) primer. Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT7T3 vector. Library is normalized. Library was constructed by Bento Soares and M. Fatima Bonaldo (N-Soares4)."
                                                                                                 /clone="IMAGE:1147392"
/clone_1ib-"NCI_CGAP_CO10"
/tissue_type="colon tumor RER+"
/tab_host="DH10B"
96 c 127 g 98 t
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    Score 346; DB 28;
Pred. No. 0.00e+00;
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OF METALLOPROTEINASES
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PROTEINASES II
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Washd-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
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Unpublished (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
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AA462734
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        house mouse.
                                                                                                                                                                                                                                 Email: mouseest@watson.wustl.edu
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h quality sequence stop: 369.
Location/Qualifiers
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WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis,
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This clone is available royalty-free
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a-geneseq31 1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part9 10:part10 11:part11 12:part12 13:part13 14:part14 15:part15 16:part16 17:part17 18:part18 19:part19 20:part20 21:part21 22:part22 23:part23 24:part24 25:part25 26:part26	Minimum Match 0% Listing first 45 summaries	120837 segs, 14945562 residues	РАМ 150 Gap 11	>R07954 (1-220) from a-geneseq.pep 1651 1 mgaaars1plafc1111gt1cawyrgaappkqefldiedp 220	Mon May 4 14:49:00 1998; MasPar time 9.43 Seconds 348.668 Million cell updates/sec	protein - protein database search, using Smith-Waterman algorithm	Release 3.0.5AA John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1997 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd	

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Mean 31.999; Variance 118.552; scale 0.270

Statistics:

SUMMARIES

Result No.	Score 1651 1651 1550 1450	Query Match 100.0 100.0 93.9 93.9 93.9 93.9	Length 220 220 220 220 220 220 230 230	221121	ID R62768 R67954 R67959 R65009 R65009	Description Bovine metalloprotein Bovine metalloproteina Human metalloproteina Human tissue infibito Human metalloproteina Complete sequence of
w N	1651 1550	100.0	220 220	22	R07954	Bovine metallopr
	1550	93.9	220	μ 3	R65009	tissue
s	1550	93.9	220	N	R07955	Human metallopro
σ	1416	85.8	194	N	R06898	Complete sequence
7	1365	82.7	186	N	R06896	Part of TIMP-2 metal
8	1339	81.1	192	N	R06895	Metalloproteinase in
	1301	78.8	177	N	R06897	Part of TIMP-2 metal
10	817	49.5	224	23	W25603	Tissue inhibitor of n
11	815	49.4	224	18	R98265	Tissue inhibitor of
12	702	42.5	211	25	W30310	Human TIMP-1/TIMP-3
13	681	41.2	198	15	R84216	TIMP-3 clone-2 produc
14	681	41.2	206	13	R65014	Human tissue inhibito
15	681	41.2	211	15	R84215	TIMP-3 clone-7 produc
16	681	41.2	211	13	R72598	TIMP-3 metalloproteir
17	680	41.2	212	13	R65002	Chicken tissue inhibi
18	668	40.5	188	25	W30308	Human TIMP-3.
19	669	40.5	211	13	·R65001	Mouse tissue inhibito
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7.2	7.8	7.8	7.9	8.1	8.1	8.5	8.7	9.0	9.5	10.1	13.3	18.7	28.0	28.8	29.9	30.6	30.9	31.0	31.0	31.0	31.0	31.0	31.1	32.9	38.2
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N-terminal of monocyt	Peptide #2 for detect	Tryptic digestion pro	Immunogenic TIMP-2 pe	Tissue inhibitor of m	Tryptic digestion pro	Immunogenic TIMP-2 pe	N-terminal sequence o	N-terminal sequence o	Metalloproteinase inh	Peptide #3 for detect	Metalloproteinase inh	Peptide #1 for detect	Mouse tissue inhibito	Pig tissue inhibitor	Human tissue inhibito	Sequence of a gibbon	Mouse tissue inhibito	Sequence of human nat	Sequence of tissue in	Human TIMP-1.	Sequence of a human p	Cattle tissue inhibit	Rabbit tissue inhibit	TIMP-3 HCM-3 clone pr	Chicken inhibitor of
3.03e-02	4.57e-03	4.57e-03	2.98e-03		1.27e-03	3.47e-04	1.45e-04	4.85e-05	8.26e-06	8.79e-07	5.35e-12	2.01e-21	3.78e-38	1.80e-39	1.85e-41	6.75e-43	2.43e-43	1.89e-43	1.89e-43	1.89e-43	1.89e-43	1.46e-43	1.13e-43	5.30e-47	•

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dqdi	dqdi	rada rada	Score Pred. 0;	e met ur ce ophic ay be	biton inati	L LOS ANGE Langley KE		/Qualifiers	hibit; ; tum ophic	ALIGN 20 AA	R1000 R0675 R3118	R10074 R100C R100C R6501	R4701 R4701 R4701 P6027	R6500 R6500 R6574	P60786 P60275 R65007 P60593 R65005
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Best Local S
Matches 22
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Claim 12; F1g 1; 63pp; English.

The product has therapuetic use in inhibiting tumour dissemination during chemotherapy and radiation therapy, impurged bone marrow cell harvesting etc. The inhibitor may also be useful in encapsulating tumours aiding clean excision, and in treatment of enphysema, Paget's disease, osteoporosis, scleroderma and bedsores.

The gene product also has application in autoimmune disorders eg. The unmatoid arthritis and multiple sclerosis.
Human metalloproteinase inhibitor.
Metalloproteinase inhibitor; tumour cell dissemination; rheumatoid arthritis; dystrophic epidermolysis bullosa; emphysema; osteoporosis; MI gene disorders.
                                                                                                                                              R62769 standard;
R62769;
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22-NOV-1990.
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scleroderma; cholesteatoma.
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Tumour; chemotherapy; cancer; Paget's disease; osteoporosis;
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19-MAY-1989; US-355027.
29-MAR-1990; US-501904.
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New human tissue inhibitor of metallo:proteinase-3 - used to develop prods. for diagnosis, therapy or prophylaxis of conditions with unwanted matrix metallo:proteinase activity. Disclosure; Fig 6A-B; 87pp; English.

Disclosure; Fig 6A-B; 87pp; English.

The protein sequence of human TIMP-2 is compared with the cattle, protein sequence of human TIMP-3, mouse and cattle TIMP-2, and chicken (Ch) and mouse TIMP-3. A probe based on the ChIMP-3 can be used to displate DNA encoding human TIMP-3 from a human cDNA library. Human TIMP-3 can be used for the diagnosis, therapy or prophylaxis of conditions contained by excess or unwanted matrix metalloproteinase
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12-AUG-1994; U09188.
12-AUG-1993; US-105263.
13-DEC-1993; US-167463.
(REGC ) UNIV CALIFORNIA.
Hawkes SP, Kishnani NS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; Q73088.

New metallo:proteinase inhibitor, analogues and DNA - for treating tumour cell dissemination, rheumatoid arthritis and flarge-scale recombinant inhibitor prodn.

Claim 8; Fig 2; 65pp; English.

Q73088 encodes R62769 human metalloproteinase inhibitor (MI), may be used to inhibit tumour cell dissemination and for treat rheumatoid arthritis, dystrophic epidermolysis bullosa, emphys and osteoporosis. The DNA may be used to detect MI gene disord
                                                                                                                                                                                                                                                                                                         (REGC ) UNIV CALIF
Hawkes SP, Kishna
WPI; 95-098775/13.
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Human tissue inhibitor of metalloproteinase (TIMP-2).
Tissue inhibitor of metalloproteinase; diagnostic; therapeutic;
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(AMGE-) AMGEN INC.
(CHIL-) CHILDRENS HOSPITAL LOS ANGELES.
BOONE TC, Declerck YA, Langley KE;
WPI; 94-343309/43.
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18-MAY-1990;
19-MAY-1989;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; 305433.
; US-355027.
; US-501904.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                  Yang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1550; DB 12;
Pred. No. 1.40e-161;
12; Mismatches 6;
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disorders
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Best Local
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Sequence 220 AA;
                                                                                                                                                                                                                                                                                                                                                                              See also
                                                                                                                                                                                                                                                                                                                                                                                                   The gene product also has application in autoimmune disorders rheumatoid arthritis and multiple sclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                            during chemotherapy and radiation therapy, impurged bone marrow cell harvesting etc. The inhibitor may also be useful in encapsulating tumours aiding clean excision, and in treatment of enphysema, Paget's disease, osteoporosis, scleroderma and bedsores.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rheumatoid arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New metallo-proteinase inhibitor polypeptide(s) - and DNA encoding them, for treatment of tumour cell dissemination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Langley KE, Boone TC, DeClerck WPI; 90-350481/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               scleroderma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human metalloproteinase inhibitor gene Tumour; chemotherapy; cancer; Paget's o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R07955;
21-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R07955 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The product has therapuetic use in inhibiting tumour dissemination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (AMGE-) AMGEN INC.
(CHIL-) CHILDREN'S HOSPITAL
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18-MAY-1990; 305433.
19-MAY-1989; US-355027.
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                                                                                                                                                                                                                                                                            1550; DB 2;
No. 1.40e-161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       disease;
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                                                                                                                                                                                                                                                                                                 Length 220;
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Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                                                               the amino acid sequence determined. A probe was synthesised based upon the protein sequence information. It was used to screen a LambdaGem-4 cDNA library prepared from human melanoma cells. 239 positives were identified from a total of 750,000 plaques screened Further analysis and screening with additional probes eliminated most of the clones. Clone pSS38 was isolated and the nucleotide sequence of the cDNA insert was determined. The deduced amino acid sequence showed excellent agreement with that derived by directly sequencing the TIMP-2 protein.

See also 005937, R06746-R06750, R06894-R06895 and Q05938-Q05939.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (USSH ) NAT INST OF HEALTH.
Stetler-Sevenson WG, Liotta LA,
WPI; 90-290097/38.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-JUL-1989;
18-AUG-1989;
13-MAR-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            matrix metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diagnosis, detection and purificn..
Disclosure; Fig 7; 54pp; English.
TIMP-2 was isolated from human melanoma cell-conditioned media
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R06898
       Synthetic.
US7494796-A.
                                part of TIMP-2 metalloproteinase in
matrix metalloproteinase inhibitor;
                                                                       R06896;
                                                                                   R06896
                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New matrix metallo-proteinase inhibitor - used to resulting from matrix metallo-proteinase activity
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                                                          16-JAN-1991 (first entry)
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|aappkqefldiedp 220
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                                                                                                                                                                                                                                                                                                                                                                                          194 AA;
                                                                                                                                                                                                                                                                                                                                      85.8%;
larity 93.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-494796
                                 metalloproteinase inhibitor, encoded
proteinase inhibitor; TIMP-2; pSS15.
                                                                                 protein; 186 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein;
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                                                                                                                                                                                                                                                                                                                                      Score 1416; DB 2;
Pred. No. 3.58e-146;
9; Mismatches 3;
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r; TIMP-2; |
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R06895;
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21-MAR-1989; US-326334.
17-JUL-1989; US-380431.
18-AUG-1989; US-395453.
13-MAR-1990; US-494796.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Fig 6A; 54pp; English.

Disclosure; Fig 6A; 54pp; English.

TIMP-2 was isolated from human melanoma cell-conditioned media and the amino acid sequence determined. A probe was synthesised based upon the protein sequence information. It was used to screen a LambdaGem-4 cDNA library prepared from human melanoma cells. 239 positives were identified from a total of 750,000 plaques screened. Further analysis and screening with additional probes eliminated all but two clones (pSS15 and pSS18). Both were sequenced and found to encode CSC-21K (=TMP-2), a novel metalloproteinase inhibitor. This is the amino acid sequence deduced from the cDNA sequence of
New matrix metallo-proteinase inhibitor - used to treat diseases resulting from matrix metallo-proteinase activity and in diagnosis, detection and purificn.. Disclosure; Fig 5; 54pp; English.

Protein was isolated from human melanoma cell-conditioned media gelatin-affinity chromatography.

It inhibits matrix metalloproteinases and can be used to treat diseases such as arthritis, diabetes, cancer, ulcers of mucosa a epithelial tissues, autoimmune-mediated inflammation, lung injur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      pss15
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Stetler-Sevenson WG, Liotta LA, Krutzsch
WPI; 90-290097/38.
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uence 186 AA;
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larity 94.1%;
Conservative
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Pred. No. 2.58e-140;
10; Mismatches 1;
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Mismatches

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                                                                                                                                                                             treat diseases and in
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                                                                                                                                                                                           New matrix metallo-proteinase inhibitor - used to treat diseases or resulting from matrix metallo-proteinase activity and in resulting from matrix.

TIMP-2 was isolated from human melanoma cell-conditioned media and the amino acid sequence determined. A probe was synthesised to based upon the protein sequence information. It was used to screen a LambdaGem-4 cDNA library prepared from human melanoma cells. 239 positives were identified from a total of 750,000 plaques screened. Further analysis and screening with additional probes eliminated all but two clones (pSS15 and pSS18). Both were sequenced and found to encode CSC-2IK (-TIMP-2), a novel metalloproteinase inhibitor.

This is the amino acid sequence deduced from the cDNA sequence of
  Query Match
Best Local S
Matches 16
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Best Local
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                                                                                                                       See also Q05937,
Sequence 177 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-JAN-1991 (first entry)
Part of TIMP-2 metalloproteinase inhibitor, encoded matrix metalloproteinase inhibitor; TIMP-2; pSS18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     granulomatous diseases and myocardial infarctions. It can also be used as a birth control agent by preventing embryo/placental attachment or invasion. Other therapeutic benefits may also be obtd. in diseases with basement destruction or myocyte destruction. See also Q05937, R06746-R06750, R06894 and Q05938-Q05940.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 90-290097/38.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (USSH ) NAT INST OF HEALTH.
Stetler-Sevenson WG, Liotta LA, Krutzsch
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-MAR-1990; US-494796
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21-MAR-1989; US-326334.
17-JUL-1989; US-380431.
18-AUG-1989; US-395453.
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        167;
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                                Similarity
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  78.8%;
larity 94.4%;
Conservative
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                                                                                                                                               R06746-R06750,
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90.7%;
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  Score 1301; DB 2;
Pred. No. 5.69e-133;
8; Mismatches 2;
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Pred. No. 2.49e-137;
10; Mismatches 7;
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                                                                                                                                               R06894-R06895,
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                                                                                                                                               Q05938 and
                                                     Length 177;
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIMP-4 can be used to treat disorders associated with excessive metalloprotease expression, e.g. tumour metastasis, angiogenesis and growth, osteoarthritis, osteoprosis, pulmonary emphysema, periodontal disease and rheumatoid arthritis, and for contraception. TIMP-4 CDNA can be used for gene therapy of such disorders and in diagnostic assays for TIMP-4 mRNA in cells and tissues. Oligonucleotide fragments of the TIMP-4 CDNA and antagonists or inhibitors of TIMP-4 can be used to treat disorders associated with over-expression of TIMP-4, e.g. to promote healing of corneal and diabetic ulcers and ulcers/lesions caused by microorganisms. Antibodies to TIMP-4 can be used to diagnose such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA encoding a tissue inhibitor of metallo:proteinase(s), TIMP-4 for production of recombinant protein for treating tumours, arthritis, etc., and for contraception Claim 1; Fig 1; 24pp; English.

This sequence is a tissue inhibitor of metalloproteinases designs TIMP-4. The cDNA clone was identified with Incyte clone No. 5893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-NOV-1997 (first entry)
Tissue inhibitor of metalloproteinase, TIMP-4; Incyte Clone No. 589345;
Tissue inhibitor of metalloproteinase; TIMP-4; Incyte Clone No. 589345;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (INCY-) INCYTE PHARM INC. Hawkins PR, Murry LE; WPI; 97-350238/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein
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d. No. 8.97e-78;
Mismatches 57;
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Claim 14; Fig 1; 49pp; English.
Human tissue inhibitor of metalloproteinase-4 (TIMP-4) (R98265)
Is a novel member of the TIMP family. Its amino acid sequence was
deduced from a cDNA clone (T34433) obtd. from an early stage
human brain. The sequence shows 488 identity to human TIMP-2.
Recombinant TIMP-4 can be expressed in e.g. E. coll, COS or insect
cell hosts. It can be used to treat patients in need of TIMP-4.
                                                                                                                                                                                                                                                                                                29-JAN-1998 (first entry)
Human TIMP-1/TIMP-3 fusion protein.
TIMP-3; human; antibody; TIMP-3-mediated disease; malignant tumour cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (e.g. cancer, arthritic diseases, bone resportion diseases, Paget's disease, hyperparathyroidism and cholesteatoma), and to screen for antagonists useful for treating patients in need of TIMP-4 inhibition (e.g. for tissue repair and remodeling). It can also be used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tissue inhibitor of metalloproteinase-4 (TIMP-4).
Tissue inhibitor of metalloproteinase-4; TIMP-4;
bone resorption; Paget disease; hyperparathyroldi
                                                                          Misc-difference
                                                                                                                                                                                                                                                        cancer progression; TIMP-1.
                                                                                                                                                                                                                                                                                                                                                                                                                      W30310,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; T34433.
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WPI; 96-300644/30.
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13-DEC-1994;
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24..211
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pred. No. 1.51e-77;
58; Mismatches 58
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Example 12; Page 34-35; 37pp; Japanese.
Carphis sequence represents a fusion protein between the human TIMP-1 and TIMP-3 proteins. This sequence was used to test the specificity of the connoclonal antibody (MAD) of the invention. The MAD of the invention reacts specifically with human TIMP-3 (see W30308), by specific recognition of the TIMP-3 fragments represented by W30305-W30307. The MAD can be used in the study or diagnosis of TIMP-3-mediated diseases, can be used in the detection of malignant tumour cells, or the consists of progressiveness of cancers. They can also be used in transformed cells can be used for IMP-3 or in purification of TIMP-3. The transformed cells can be used for producing TIMP-3 or its equivalent proteins on a large scale. The immunoassay method for TIMP-3 the MADs is simple, highly reproducible and highly sensitive.
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cancer, and cancer canc
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R84216 standard; Protein; 198
R84216;
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                                                                                                                                                                                                                                             New tissue inhibitor metallo:proteinase cancer, inflammation, emphysema, embryo
                                                                                                                                                                                                                                                                                                           N-PSDB; T02360
                                                                                                                                                                                                                                                                                                                                    Koski RA, Silbige
WPI; 95-155259/20.
                                                                                                                                                                                                                                                                                                                                                                                                               04-OCT-1994; U11241.
06-OCT-1993; US-134231.
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12-AUG-1993; US-105263.
13-DEC-1993; US-167463.
(REGC ) UNIV CALIFORNIA.
Hawkes SP, Kishnani NS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New human tissue inhibitor of metallo:proteinase-3 - used to develop prods, for diagnosis, therapy or prophylaxis of conditions with unwanted matrix metallo:proteinase activity. Disclosure; Fig 11; 87pp; English.

Human TIMP-3 can be used for the diagnosis, therapy or prophylaxis of conditions characterized by excess or unwanted matrix metalloproteinase activity, e.g. neoplasias, tumor metastasis, inflammatory disorders such as rhemmatoid arthritis, ulcerations, reaction to infection, periodontal disease or osteoporosis. It can also be used in drug screening/design.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hawkes SP, Kishnan WPI; 95-098775/13. N-PSDB; Q82747.
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Tissue inhibitor
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No. 1.97e-62;
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Best Local Similarity 43.78;
Matches 87; Conservative
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Claim 3; Page 66-67; 112pp; English.
The product (R84215) of Timp3clone7 cDNA clone (T02359) is a novel tissue inhibitor metalloproteinase, designated TIMP-3. Recombinant TIMP-3 can be expressed in prokaryotic or eukaryotic host cells and used to treat degradative diseases of connective tissues. Sequence 211 AA;
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TIMP-3 clone-7 product
TIMP-3 clone-7 hibitor metalloproteinase type three; cancer;
inflammation; emphysema; embryo implant modulation; arthritis;
dystrophic epidermolysis bullosa; peridontal disease; ulcer;
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04-OCT-1994; U11241.
06-OCT-1993; US-134231.
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Koski RA, Silbiger SM;
NPI; 95-155259/20.
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202 awyrgaappkqefldiedp 220
                                             193 swyrgwappdkslinatdp 211 ::: ||
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Search completed: Mon May 4 14:49:28 1998 Job time : 28 secs.

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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

no on: bular output not generated. Mon May 4 14:46:56 1998; MasPar time 8.66 Seconds 637.128 Million cell updates/sec

Description:
Perfect Score:
Sequence: Title:

>R07954
(1-20) from a-geneseq.pep
1651
1 mgaaars1plafc1111gt1.....cawyrgaappkqefldiedp 220

Scoring table: PAM 150 Gap 11

69112 segs, 25083644 residues

Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

Database: swiss-prot35

Statistics: Mean 44.292; Variance 65.300; scale 0.678

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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ALIGNMENTS

DR DR FTT FTT FTT		RA RA RA	RESU ID AC DT DT DT DT DE DE OC
DR PIK; A2332; A2332. DR PIK; A35986; A35996. DR PIR; A34468; A34468. DR PROSITE; PS00288: TIMP; 1. KW METALLOPROTEASE INHEBITOR; SIGNAL. FT SIGNAL 1 26 FT CHAIN 27 220 METALLOPROTEINAS FT DISULFID 27 98 BY SIMILARITY. FT DISULFID 29 127 BY SIMILARITY. FT DISULFID 39 152 BY SIMILARITY. FT DISULFID 154 201 BY SIMILARITY. FT DISULFID 172 193 BY SIMILARITY. FT DISULFID 172 193 BY SIMILARITY. FT DISULFID 154 BY SIMILARITY.	SEQUENCE OF 27-71. MEDLINE; 90008914. DE CLERCK Y.A., YEAN T.D. J. BIOL. CHEM. 264:17445 -1- FUNCTION: COMPLEXES AND IRREVERSIBLY INA -1- PTM: THE ACTIVITY OF DISULFIDE BONDS1- SIMILARITY: HIGH WITE EMBL; M32303; G163342;	[1] [1] [2] [3] [3] [4] [5] [5] [6] [6] [6] [7] [7] [7] [8] [8] [8] [9] [9] [9] [9] [9] [9] [9] [9] [9] [9	TIM2_BOVIN STANDARD; PRT; 220 A p16368; 01-AUG-1990 (REL. 15, CREATED) 01-FAX-1991 (REL. 18, LAST SEQUENCE UPDATE 01-FEB-1995 (REL. 31, LAST ANNOTATION UPDA METALLOPROTEINASE INHIBITOR 2 PRECURSOR (I METALLOPROTEINASES-2) (COLLAGENASE INHIBIT TIMP2. BOS TAURUS (BOVINE). EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; EUTHERIA; ARTIODACTYLA.
E INHIBITOR 2.	.S., LANGLEY K.E.; ES (SUCH AS COLLAGENASES) ON THE PRESENCE OF E TIMP FAMILY.	LANGLEY K.E.; (1990).	A. ;; ;(TE) ;(TISSUE INHIBITOR OF ;(OR).

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Best Local S
Matches 22
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                                                                                                                                                                                                                                                                                                                     JEQUENCE.
TISSUE-PLACENTA;

TISSUE-PLACENTA;

MEDILINE; 96411768.

HAMMANI K., BLAKIS A., MORSETTE D., BOWCOCK
HENRIET P., DECLERCK Y.A.;

TOTOL. CHEM. 271:25498-25505(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TIM2_HUMAN STANDARD; PRT; 220 AA. P16035; O93006; O1-APR-1990 (REL. 14, CREATED) O1-NOV-1990 (REL. 16, LAST SEQUENCE UPDATE) O1-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE) METALLOPROTEINASE INHIBITOR 2 PRECURSOR (TIMP-2)
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MEDLINE; 90008902.
STETLER-STEVENSON W.G., KRUTZSCH H.C.,
J. BIOL. CHEM. 264:17374-17378(1989).
                                                                                                                                                                                                                                                                           SEQUENCE OF 30-214 FROM N.A.
MALIK K., SEJIMA H., AOKI T., IWATA K.;
SUBMITTED (AUG-1990) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE; 90338014.
STETLER-STEVENSON W.G., BROWN P.D.,
J. BIOL. CHEM. 265:13933-13938(1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; PRIMATES.
                                                                                                                                    SEQUENCE OF 30-51; 124-141 AND 159-173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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                                     EQUENCE OF 27-41.
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SDLINE; 92111776.
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220
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A. 86:8207-8211(1989).
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- I SIMILARITY: HIGH WITH OTHER MEMBERS OF THE TIMP FAMILY.

EMBL; J0593; G339707; -.

EMBL; S48568; G298202; -.

EMBL; U44385; G1517893; -.

EMBL; U44382; G1517893; JOINED.

EMBL; U44382; G1517893; JOINED.

EMBL; U44382; G1517893; JOINED.

EMBL; U44383; G1517893; JOINED.

EMBL; U44383; G37181; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WILLIAMSON R.A., MARTORELL G., CARR M.D., MURPHY FREEDMAN R.B., FEENEY J.;
BIOCHEMISTRY 33:11745-11759(1994).
-!- FUNCTION: COMPLEXES WITH METALLOPROTEINASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OSTHUES A., KNAUEPER V., (
FEBS LETT. 296:16-20(1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIR;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AND IRREVERSIBLY INACTIVATE THEM.

-!- PTM: THE ACTIVITY OF TIMP-2 IS DEPENDENT ON THE PRESENCE
121
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                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IYGNPIKRIQYEIKQIKMFKGPEKDIEFIYTAPSSAVCGVSLDVGGKKEYLIAGKAEGDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          188825;
                                                                                                                                                                                                                                                                                                             iygnpikriqyeikqikmfkgpdqdiefiytapaaavcgvsldiggkkeyliagkaegng
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larity 91.8%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OBERHOFF R., REINKE H., TSCHESCHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ¥.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1550; DB 1; 1
Pred. No. 0.00e+00;
12; Mismatches 6;
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M -> K (
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> I (IN REF. 4).
> V (IN REF. 4).
> E (IN REF. 5).
> E (IN REF. 5).
> R (IN REF. 5).
> Q (IN REF. 5).
> Q (IN REF. 5).
> T (IN REF. 5).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MURPHY G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 220;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (SUCH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AS COLLAGENASES)
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RESULT TO AC PO

TIM2_RAT STANDARD; J P30121; 01-APR-1993 (REL. 25, CREATED)

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Best Local :
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EMBL; U14526; G540205; -.
EMBL; U145384; G1141730; -.
EMBL; S72594; G619233; -.
EMBL; S82718; G1881814; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-SPRAGUE-DAWLEY; TISSUE-BONE; MEDLINE; 94263207.
COOK T.F., BURKE J.S., BERGMAN K.D. PARTRIDGE N.C.;
PARCH. BIOCHEM. BIOPHYS. 311:313-320
                                                                                                                                                                                                                                                                                                                                                                        DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 92117648.

ROSWIT W.T., MCCOURT D.W., PARTRIDGE N.C., JEFFREY J.J.;

RACH. BIOCHEM. BIOPHYS. 292:402-410(1992).

-i- FUNCTION: COMPLEXES WITH METALLOPROTEINASES (SUCH AS COLLAGENASES)

-i- PIM: THE ACTIVITY OF TIMP-2 IS DEPENDENT ON THE PRESENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SANTORO M., BATTAGLIA C., ZHANG I SALVATORE D., FUSCO A.; EXP. CELL RES. 213:398-403(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
METALLOPROTECHNASE INHIBITOR 2 PRECURSOR (TIMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 96384329.
GRIMA J., CALCAGNO
                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                       CONFLICT
                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
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PROSITE; PS00288; T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 27-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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MEDLINE; 94326839.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBMITTED (JUN-1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GIBBONS K.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RATTUS NORVEGICUS (RAT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TIMP2 OR TIMP-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EQUENCE FROM N.A.
    61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MA J., CALCAGNO K., CHENG C.Y.;
ANDROL. 17:263-275(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFIDE BONDS
                                                                                                        MGAAARSLRLALGLLLLATLLRPADACSCSPVHPQQAFCNADVVIRAKAVSEKEVDSGND
                    IYGNPIKRIQYEIKQIKMFKGPDKDIEFIYTAPSSAVCGVSLDVGGKKEYLIAGKAEGDG 120
                                                                             iygnpikriqyeikqikmfkgpdqdiefiytapaaavcgvsldiggkkeyliagkaegng
                                                                                                                                                                                              Similarity
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220
                                                                                                                                                                       93.6%;
llarity 92.3%;
Conservative
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N-1995) TO EMBL/GENBANK/DDBJ DATA BANKS
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220
98
127
152
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193
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             311:313-320(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZHANG L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL.
                                                                                                                                                                                                                                                                              BY SIMILARITY.
BY SIM
                                                                                                                                                                     Score 1546; Db .,
bred. No. 0.00e+00;
bred. No. 7;
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                                                                                                                                                                                                                                                                222F8EDA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OF.
                                                                                                                                                                                                                                                              CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THE TIMP FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         c.o.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INHIBITOR
                                                                                                                                                                                                                Length 220
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Best Local (
                            Matches
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P25785;
01-MAY-1992
                                                                 CONFLICT
CONFLICT
SEQUENCE
                                                                                               DISULFID DISULFID CONFLICT
                                                                                                                                               DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 92290292.
SHIMIZU S., MALIK K., S
GENE 114:291-292(1992).
                                                                                                                                                                    CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MUS MUSCULUS (MOUSE)
EUKARYOTA; METAZOA; (
                                                                                                                                                                                                                                                  EMBL; M
                                                                                                                                                                                                                                                                    DISULFIDE BONDS
                                                                                                                                                                                                                                                                                                                                                                              LECO K.J., HAYDEN L.J.,
EDWARDS D.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-BALB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAY-1992 (REL. 22, CREATED)
01-APR-1993 (REL. 25, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 2 PRECURSOR (TIMP-2)
                                                                                                                             DISULFID
                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                         -!- PIM: THE ACTIVITY OF TIMP-2
                                                                                                                                                                                                                                                                                                                                                                     GENE 117:209-217(1992).
                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rimp2 or rimp-
                                                                                                                                                                                        METALLOPROTEASE
                                                                                                                                                                                                                                                                                                                    MATRIX 11:10-16(1991
                                                                                                                                                                                                                                                                                                                              KISHI J.I., OGAWA K., YAMAMOTO S.,
                                                                                                                                                                                                                                                                                                                                         EDLINE; 91226375
                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 92347695.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              METALLOPROTEINASES-2).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FUNCTION: COMPLEXES WITH METALLOPROTEINASES AND IRREVERSIBLY INACTIVATE THEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MGAAARSLRIAIGILLIASLVRPADACSCSPVHPQQAFCNADVVIRAKAVSEKEVDSGND
                                                                                                                                                                                                          MGI:98753; TIMP2
                                                                                                                                                                                                                              S15987; S15987
                                                                                                                                                                                                                                        X62622; G54802; -.
M82858; G202052; -.
M93954; G202054; -.
                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                 92290292.
                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                     HIGH WITH
                                                                                                                                                                                       INHIBITOR;
                                                                                                                                                                                                  TIMP;
                                    93.0%;
                                                                                                          220
220
98
127
152
201
193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHORDATA; VERTEBRATA; TETRAPODA;
                                                                  24328
                                                                                                                                                                                                                                                                                                                                                 OF 27-62
                                                                                                                                                                                                                                                                                                                                                                                                                                         SEJIMA H.,
                                                                                                                                                                                                                                                                                                                                                                                        SHARMA R.R., ROCHELEAU H.,
                                                                    WW;
                                                                                                                                                                                                                                                                     OTHER MEMBERS
                                                                                                                                                                                       SIGNAL.
                          Score 1536; DB 1; Pred. No. 0.00e+00; 7;
                                                                                                       METALLOPROTEINASE INHIBITOR 2
BY SIMILARITY.
                                                                  L -> H (IN REF. 2)
V -> L (IN REF. 2)
K -> E (IN REF. 2)
W; EBC62FFC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                         IS DEPENDENT ON
                                                                                                                                                                                                                                                                                                                                                                                                                                         KISHI J.I.,
                                                                                                                                                                                                                                                                                                                               HAYAKAWA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        220
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                                                                                                                                                                                                                                                                     THE TIMP FAMILY
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                                                                             222
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                                               Length 220;
                                                                                                                                                                                                                                                                                        THE PRESENCE
                                                                                                                                                                                                                                                                                                            (SUCH AS COLLAGENASES)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TISSUE INHIBITOR
                             Indels
                                                                                                                                                                                                                                                                                                                                                                                        GREENBERG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                         KOIWAI O.;
                             0;
                             Gaps
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                                                                                                                                                                                                                                                                  MEDLINE; 95290091.
WILDE C.G., HAWKINS P.R., COLEMAN R.T.,
DELEGEANE A.M., OKAMOTO P.M., ITO L.Y.,
DNA CELL BIOL. 13:711-718(1994).
[5]
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-KIDNEY;
MEDLINE; 94215920.
SILBIGER S.M., JACOBSEN V.L.,
GENE 141:293-297(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TIM3_HUMAN STANDARD; PRT; 211 AA. P35625; 01-JUN-1994 (REL. 29, CREATED) 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE) 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE) METALLOPROTEINASE INHIBITOR 3 PRECURSOR (TIMP-3)
                                                                                                                                                                                                                        STOEHR H., ROOMP K., FELBOR U., GENOME RES. 5:483-487(1995).
                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE; 96404191.
                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 95290091.
                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE; 94308155. WICK M., BUERGER C.,
                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 94228524.
URIA J.A., FERRANDO A.A., VELAS
CANCER RES. 54:2091-2094(1994).
                                                   MEDLINE; 94245184.
APTE S.S., MATTEI M.-G.,
GENOMICS 19:86-90(1994).
                                                                                                                     SUBMITTED
                                                                                                                                       TISSUE-PLACENTA:
                                                                                                                                                  SEQUENCE OF 42-211
                                                                                                                                                                     SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA
                                                                                                                                                                                TISSUE-RETINAL RUIZ A.C.;
                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA; (
VARIANTS SED CYS-191 AND CYS-204.
MEDLINE; 95201800.
WEBER B.H.F., VOCT G., PRUETT R.C.,
NAT. GENET. 8:352-356(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
TISSUE-BREAST CARCINOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                METALLOPROTEINASES-3) (MIG-5 PROTEIN).
                                                                                              SEQUENCE OF 14-211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KMHITLCDFIVPWDTLSITQKKSLNHRYQMGCECKITRCPMIPCYISSPDECLMMDWYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nmhitlcdfivpwdtlsatqkkslnhryqmgceckitrcpmipcyisspdeclwmdwvte 180
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                                                                                                                   (MAY-1996)
                                                                                                                              HENRIET P.M.,
                                                                                                                                                                                          PIGMENT EPITHELIUM,
                                                                                                                                                                                                                                                                                                                                         ER C., BRUESSELBACH S., 269:18953-18960(1994).
                                                                                              FROM N.A.
                                                                                                                                                FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHORDATA;
                                                                                                                  TO EMBL/GENBANK/DDBJ
                                                               OLSEN B.R.;
                                                                                                                             SILBIGER S.M.,
                                                                                                                                                                                                                                                                                                                                                                                                       VELASCO G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CUPPLES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERTEBRATA;
                                                                                                                                                                                                                                   WEBER B.H.F.;
          STOEHR H.,
                                                                                                                                                                                                                                                                                                                                                    LUCIBELLO
                                                                                                                                                                                                                                                                                                                                                                                                        FREIJE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R.L.,
                                                                                                                                                                                                                                                                                      SCOTT R
                                                                                                                           DECLERCK Y.A.;
                                                                                                                  DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KOSKI R.A.;
                                                                                                                                                                                                                                                                                   R.W., SEILHAMER
                                                                                                                                                                                                                                                                                                                                                                                                     3
            FELBOR
                                                                                                                                                                     BANKS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (TISSUE INHIBITOR
                                                                                                                                                                                                                                                                                                                                                                                                        LOPEZ-OTIN
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Best Local S
Matches 8
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CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                       VARIANT
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AND IRREVERSIBLY INACTIVATE THEM. MAY FORM PART OF A TISSUE-
SPECIFIC ACUTE RESPONSE TO REMODELING STRULLI.

-!- SUBCELLULAR LOCATION: EXTRACELLULAR MATRIX.

-!- DISEASE: DEFECTS IN TIMP3 ARE THE CAUSE OF SORSBY'S FUNDUS
DYSTROPHY (STD), A RARE AUTOSOMAL DOMINANT MACULAR DISORDER WITH
AN AGE OF ONSET IN THE FOURTH DECADE. IT IS CHARACTERIZED BY LOSS
OF CEMTRAL VISION FROM SUBRETIMAL NEOVASCULARIZATION AND ATROPHY
OF THE OCCULAR TISSUES. GENERALLY, MACULAR DISCIFORM DEGENERATION
DEVELOPS IN THE PATIENTS EYE WITHIN 6 MONTHS TO 6 YEARS.

-!- SIMILARITY: HIGH WITH OTHER MEMBERS OF THE TIMP FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
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FELBOR U., STOEHR H., AMANN T., SCHOENHERR U., WEBER B.H.F.;
HUM. MOL. GENET. 4:2415-2416(1995).
                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          METALLOPROTEASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          J. MED. GENET. 33:233-236(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WEBER B.H.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARIANT SFD CYS-191.
MEDLINE; 96341630.
133 KGLNYRYHLGCNCKIKSCYYLPCFVTSKNECLWTDMLSNFGYPGYQSKHYACIRQKGGYC 192
                                                                                                         83
                                                                           75
                                  d-gdiefiytapaaavcgvsldiggkkeyliagkaegngnmhitlcdfivpwdtlsatqk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S45317;
                                                                       KMPHVQYIHTEASESLCGLKLEVN-KYQYLLTGRVY-DGKMYTGLCNFVERWDQLTLSQR 132
                                                                                                                                                                                      41.2%;
Similarity 43.7%;
87; Conservet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STOEHR H.,
                                                                                                                                                                                                                                                                          211 AA;
                                                                                                                                                                                                                                                                    23
211
91
118
1143
1192
155
1184
179
191
204
16
16
16
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204
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AMANN T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOINED.
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JOINED.
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JOINED.
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                                                                                                                                                                                                                                                                METALLOPROTEINASE INHIBITOR 3.
BY SIMILARITY.
BY GIN SED).
T -> C (IN SED).
T -> W (IN REF. 3).
DW -> T (IN REF. 3).
AE -> PR (IN REF. 8).
EA -> PR (IN REF. 3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL;
                                                                                                                                                                                          Score 681; DB 1; I
Pred. No. 4.35e-150;
51; Mismatches 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCHOENHERR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISEASE MUTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            σ.,
                                                                                                                                                                                          51;
                                                                                                                                                                                                                                 Length 211;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APFELSTEDT-SYLLA
                                                                                                                                                                                          Indels 10;
                                                                                                                                                                                          Gaps
                                  141
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Best Local :
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DISULFID
SEQUENCE
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DISULFID
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01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-CT-1996 (REL. 34, LAST ANNOTATION UPDATE)
01-CT-1996 (REL. 34, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 3 PRECURSOR (TIMP-3) (TISS
METALLOPROTEINASES-3) (21 KD PROTEIN OF EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                            STASKUS P.W., MASIARZ F.R., PALIANCK L.J., HAWKES S.P.;
J. BIOL. CHEM. 266:449-454(1991).
-i- FUNCTION: COMPLEXES WHITH METALLOPROTEINASES (SUCH AS COLLAGENASES)
-AND IRREVERSIBLY INACTIVATE THEM. MAY FORM PART OF A TISSUE-
SPECIFIC ACUTE RESPONSE TO REMODELING STIMULI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GALLUS (CHICKEN).
EUKARYOTA; METAZOA; CHOI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 92381050.
PAVLOFF N., STASKUS P.W., KISHANANI N.S.,
J. BIOL. CHEM. 267:17321-17326(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TIM3_CHICK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
TISSUE-EMBRYONIC FIBROBLAST;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIMP3 OR IMP-3.
                                                                                                                                                                                                                                                                                                                                              METALLOPROTEASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 25-53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GALLIFORMES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (EDLINE; 91093162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            202
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 202
                                                142
                      194 SWYRGWAPPDKTIINATDP 212
                                                                                                                                                                                               Local Similarity
hes. 89; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SSUE-FIBROBLAST;
                                                                                               83
                                                                                                                      76
                                                                                                                                              24
                                                                                                                                                                     22
                                                                                                                                                                                                                                                                                                                                                                      ; A39043; A39043.
; A43429; A43429.
SITE; PS00288; TIM
                                                                                                                                                                                                                                                                                                                                                                                                                        SUBCELLULAR LOCATION: EXTRAC SIMILARITY: HIGH WITH OTHER
                                                                                                                                                              AEACTCVPIHPQDAFCNSDIVIRAKVVGKKLMKDGP--FGT-M-R--YTVKQMKMYRGFQ 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           awyrgaappkgefldiedp
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 awyrgaappkqefldiedp
                                                                      KGLNHRYHLGCGCKIRPCYYLPCFATSKNECIWTDMLSNFGHSGHQAKHYACIQRVEGYC 193
                                                                                                                      IMPHVQYIYTEASESLCGVKLEVN-KYQYLITGRVY-EGKVYTGLCNWYEKWDRLTLSQR 133
                                                                                                                                             adacscspvhpqqafcnadivirakavnkkevdsgndiygnpikriqyeikqikmfkg-p
                                             kslnhryqmgceckitrcpmipcyisspdeclwmdwvtekninghqakffacikrsdgsc
                                                                                                                                                                                                                                                                                                                                                                                                           M94531; G211902;
                                                                                                                                                                                                                                              146
151
164
212
                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                           INHIBITOR;
                                                                                                                                                                                                                                                                                                                                                                          TIMP;
                                                                                                                                                                                                         41.28;
                                                                                                                                                                                                                                                           212
92
119
144
193
185
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                                                                                                                                                                                                                                               24504 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   211
                                                                                                                                                                                                                                                                                                                                                                                                                                   EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                           SIGNAL.
                                                                                                                                                                                               Pred.
49; 1
                                                                                                                                                                                                                                                          METALLOPROTEINASE 1
BY SIMILARITY.
                                                                                                                                                                                                            Score 680; DB 1; L
Pred. No. 8.22e-150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                              C0489C6F CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                          MEMBERS
                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             212
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TETRAPODA; AVES; NEOGNATHAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HAWKES S.P.;
                                                                                                                                                                                               51;
                                                                                                                                                                                                                      Length 212;
                                                                                                                                                                                                                                                                                                                                     INHIBITOR
                                                                                                                                                                                                                                                                                                                                                                                                                          TIMP FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TISSUE INHIBITOR ULAR MATRIX).
                                                                                                                                                                                               Indels 10;
                                                                                                                                                                                               Gaps
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                                                                                                                                                                         METALLOPROTEINASES-3).
TIMP3 OR TIMP-3 OR SUN.
MUS MUSCULUS (MOUSE).
                                                                                                                                                                                                                                                                                    TIM3_MOUSE STANDARD; PRT; 211 AA P39876; P3987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL;
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-I - FUNCTION: COMPLEXES WITH METALLOPROTEINASES (SUCH AS COLLAGENASES).

-I - FUNCTION: COMPLEXES WITH METALLOPROTEINASES (SUCH AS COLLAGENASES).

-I - FUNCTION: COMPLEXES WITH METALLOPROTEINASES (SUCH AS COLLAGENASES).

-I - FUNCTION: COMPLEXES OF A TISSUE-SPECIFIC ACUTE RESPONSE TO REMODELING STIMULI.
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-1997 (REL.
01-NOV-1997 (REL.
01-NOV-1997 (REL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- SUBCELLULAR LOCATION: EXTRACELLULAR MATRIX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SU S., DEHNADE F
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   SEQUENCE FROM N.A. MEDLINE; 94179361.
                                                                                                           EUTHERIA;
                                                                                                                                              EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
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90; Conserv
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                                                                                                       RODENTIA:
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35, LAST SEQUENCE UPDATE)
35, LAST ANNOTATION UPDATE)
INHIBITOR 3 PRECURSOR (TIMP-3) (TISSUE INHIBITOR
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                                                                                                                                              CHORDATA;
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BY SIMILARITY.
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Pred. No. 1.33e-14
57; Mismatches ?
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                                                                                                                                              VERTEBRATA;
                                                                                                                                                                                                                                                                                            PRECURSOR (TIMP-3)
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                                                                                                                                              TETRAPODA;
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                                                                                                                                                                                                                                                                                                (TISSUE INHIBITOR
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STRAIN-BALB/C; TISSUE-SKIN, AND LU
STRAIN-BALB/C; TISSUE-SKIN, AND LU
MEDLINE; 94163596.
SUN Y., HEGAMYER G., COLBURN N.H.;
CANCER RES. 54:1139-1144(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL;
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J. BIOL. CHEM. 270:14313-14318(1995).

-I- FUNCTION: COMPLEXES WITH METALLOPROTEINASES (SUCH AS COLLAGENASES AND IRREVERSIBLY INACTIVATE THEM. MAY FORM PART OF A TISSUE-SPECIFIC ACUTE RESPONSE TO REMODELING STIMULI.

-I- SUBCELLULAR LOCATION: EXTRACELLULAR MATRIX.

-I- TISSUE SPECIFICITY: HIGHEST LEVELS ARE FOUND IN KIDNEY, LUNG AND BRAIN FOLLOWED BY OVARY AND UTERUS. LOW LEVELS ARE FOUND IN BONE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 95036582.
APTE S.S., HAYASHI K.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-129,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INDUCTION: HIGHLY INDUCED BY PHORBOL ESTER (PMA), EGF AND TRANSFORMING GROWTH FACTOR-BETA 1. ALSO INDUCED BY DEXAMETHASONE
                                                                                                                                                                                                                                                                                                                     AEACTCSPSHPQDAFCNSDIVIRAKVVGKKLVKEGP--FGT-L--V-YTIKQMKMYRGFS
                                        KGLNYRYHLGCNCKIKSCYYLPCFVTSKNECLWTDMLSNFGYPGYQSKHYACIRQKGGYC
                                                                                                                                                                           KMPHVQYIHTEASESLCGLKLEVN-KYQYLLTGRVY-EGKMYTGLCNFVERWDHLTLSQR 132
                                                                                                                                                                                                                                            adacscspvhpqqafcnadivirakavnkkevdsgndiygnpikriqyeikqikmfkg-p
                                                                                                      d-qdiefiytapaaavcgvsldiggkkeyliagkaegngnmhitlcdfivpwdtlsatqk
       Similarity 43.7%, 87; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95301511.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S43052
                                                                                                                                                                                                                                                                                        ß,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-SKIN, AND LUNG
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                                                                                                                                                                                                                                                                                                                                                                                                                               40.7%;
43.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24182 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SELDIN M.F., MATTEI M.-G.,
       :::: := - :::
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                                                                                                                                                                                                                                                                                                                                                                                   Score 672; DB 1; 1
Pred. No. 1.33e-147;
51; Mismatches 51:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               METALLOPROTEINASE INHIBITOR 3
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 211;
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P20414;
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01-FEB-1991
01-FEB-1996
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  BOS TAURUS EUKARYOTA;
                                            TIMP1.
                                                                                    METALLOPROTEINASE
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-!- SIMILARITY: HIGH WITH
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SUBMITTED (MAY-1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RATTUS NORVEGICUS (RAT) EUKARYOTA; METAZOA; CHO
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01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
01-FEB-1996 (REL. 33, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 3 PRECURSOR (TIMP-3)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
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                                                                                                                                                                                                                                                                                                     193 SWYRGWAPPDKSISNATDP 211
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                                                                                                                                                                                                                                                                             awyrgaappkqefldiedp
                                                                                                                                                                                                                                                                                                                                                                                                          KGLNYRYHLGCNCKIKSCYYLPCFVTSKKECLWTDMLSNFGYPGYQSKHYACIRQKGGYC
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  (BOVINE).
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(REL.
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                                                                                                                                                                                             STANDARD;
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                                                                           17, CREATED)
17, LAST SEQUENCE UPDATE)
33, LAST ANNOTATION UPDATE)
18: INHIBITOR 1 PRECURSOR (TIMP-1) (EMBRYOGENIN-1)
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CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA
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BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 666; DB 1; I
Pred. No. 5.98e-146;
51; Mismatches 52;
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J. BICL. CHEM. 264-117445-17453(1989).
-i- FUNCTION: COMPLEXES WITH METALLOPROTEINASES
AND IRREVERSIBLY INACTIVATE THEM.
-i- PIM: THE ACTIVITY OF TIMP-1 IS DEPENDENT ON
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL.
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MEDLINE; 94257757.
SATOH T., KOBAYASHI K.,
                                                              01-FEB-1996
01-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FREUDENSTEIN J., WAGNER BIOCHEM. BIOPHYS. RES. (
                                         TIMP1.
                                                    METALLOPROTEINASE
                                                                                   01-FEB-1996
                                                                                           TIM1_PAPCY
P49061;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               - ! - SIMILARITY: HIGH WITH OTHER MEMBERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 90008914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY SEQUENCE OF 24-69.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE; 90365711.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EUTHERIA;
                    PAPIO CYNOCEPHALUS EUKARYOTA; METAZOA;
            EUTHERIA; PRIMATES
                                                                                                                                                186
                                                                                                                                                                                                            122
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                                                                                                                                             FQSRHLACLPREPGLCTW |:::||:| |:| |:| hqakffacikrsdgscaw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A35685; A35685.
B34468; B34468.
ITE; PS00288; TIMP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFIDE BONDS
                                                                                                                                                                                                  CSEVAPWNSMSSAQRRGETKTYAAGCEECTVEPCSSIPCKLQSDTHCLWTDQLLTGSDKG 181
                                                                                                                                                                                                                                                                                    PMASGILLLLWLTAPSRACTCVPPHPQTAFCNSDVVIRAKFVGTAEVNE-TALYQRYEIK 64
                                                                                                                                                                                                                               riqyeikqikmfkgpdqdiefiytapaaavcgvsldiggkke-yliagkaegngnmhitl
                                                                                                                                                                                                                                                     MTK-MFKGFSALRDA-PDIRFIYTPAMESVCGYFHRSQNRSEEFLIAGQL-SNGHLHITT 121
                                                                                                                                                                                                                                                                        plafcllllgtllpradacscspvhpqqafcnadivirakavnkkevdsgndiygn-pik 67
                                                                                                                                                                                       cdfivpwdtlsatqkkslnhryqmgce-ckitrcpmipcyisspdeclwmdwvtekning
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77; Conser
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(REL.
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50:835-844(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   METALLOPROTEASE
                                                                                                                                                                                                                                                                                                                                                           AA;
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207
93
1122
147
1197
1197
1160
1189
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101
23031
                                                                                                       STANDARD;
                                                 33, CREATED)
33, LAST SEQUENCE UPDATE)
33, LAST ANNOTATION UPDATE)
INHIBITOR 1 PRECURSOR (TIMP
                                                                                                                                                                                                                                                                                                                           31.0%;
                     (YELLOW BABOON)
CHORDATA; VERT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMUN.
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BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
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JN. 171:250-256(1990).
                                                                                                                                                                                                                                                                                                                  43;
                                                                                                                                                                                                                                                                                                                          Score 512; DB 1; 1
Pred. No. 6.82e-104
                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INHIBITOR;
                      VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                           2D11ED5F CRC32;
                                                                                                                                                                                                                                                                                                                  Mismatches
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                                                                                                       207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KIKUCHI M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OF THE
                                                   (TIMP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LU H.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ERYTHROCYTE MATURATION;
                                                                                                       A
                      TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                    Length 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                      INHIBITOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TIMP FAMILY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SENDAI Y.,
                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRESENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCHEIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COLLAGENASES)
                                                                                                                                                                                                                                                                                                                  7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HOSHI H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  K.H.;
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Best Local
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SEQUENCE FROM N.A.
MEDLINE; 85240567.
GASSON J.C., GOLDE D.W., KJ
KAUFMAN R.J., WONG G.G., TI
ORR E.C., CLARK S.C.;
NATURE 315:768-771(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TIM1_HUMAN
P01033; Q142
21-JUL-1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
DISULFID
CARBOHYD
CARBOHYD
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                           21-JUL-1986 (REL. 01, CREATED)
21-JUL-1986 (REL. 01, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 1 PRECURSOR (TIMP-1) (ERYTHROID
POTENTIATING ACTIVITY) (EPA) (TISSUE INHIBITOR OF METALLOPROTEINASES)
(FIBROBLAST COLLAGENASE INHIBITOR) (COLLAGENASE INHIBITOR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -1- FUNCTION: COMPLEXES WITH METALLOPROTEINASES
AND IRREVERSIBLY INACTIVATE THEM.
-1- PTM: THE ACTIVITY OF TIMP-1 IS DEPENDENT ON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FOROUGH R., NIKKARI S. GENE 163:267-271(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM
TISSUE-AORTA;
                                                                                                                                                                                                                                                                          HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA; (
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL;
                                                                                                                                             MEDLINE; 86040463.
DOCHERTY A.J.P., LYONS A.
HARRIS T.J.R., MURPHY G.,
NATURE 318:66-69(1985).
                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE; 86040463.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -1- SIMILARITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE;
                                                                                                                                                                                                                                                                                                                                         TIMP1 OR TIMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         182
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122
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hqakffacikrsdgscaw
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CSFVAPWNSLSLAQRRGFTKTYTVGCEECTVFPCLSIPCKLQSGTHCLWTDQLLQGSEKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               riqyelkqlkmfkgpdqdleflytapaaavcgvsldiggkke-yliagkaegngomhitl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FOSRHLACLPREPGLCTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cdfivpwdtlsatqkkslnhryqmgce-ckitrcpmipcyisspdeclwmdwvtekning
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  plafcllllgtllpradacscspvhpqqafcnadivirakavnkkevdsgndiygn-pik
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SULFIDE BONDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity 79; Conse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q14252;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
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                                                                                                                                                                                                                                                                                                CHORDATA;
                                                                                                                                                                                     `.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                203
                                         KAUFMAN S.E.,
TEMPLE P.A., 1
                                                                                                                                                                   REYNOLDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER MEMBERS OF
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METALLOPROTEINASE I
BY SIMILARITY.
POTENTIAL.
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Pred. No. 1.27e-103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
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                                                                                                                                                                                                                                                                                                  VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             207
                                         LEARY A.C., BROW
                                                                                                                                                                                       WRIGHT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ERYTHROCYTE MATURATION:
                                                                                                                                                                                                                                                                                                  TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              THE TIMP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (SUCH AS COLLAGENASES)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLOWES A.W.;
                                                                                                                                                                                           <u>'</u>
                                             BROWN E.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
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                                                                                                                                                                                           STEPHENS
                                                                                                                                                                                                                                                                                                    MAMMALIA
                                                                 HEWICK R.M.,
                                                                                                                                                                                           ₽.Ε.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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EWBL;
EWBL;
EWBL;
EWBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           O'SHEA M., WILLENBROCK F., WILLIAMSON R.A., COCKETT M.I., FREEDMAN R.B., REYNOLDS J.J., DOCHERTY A.J.P., MURPHY G.; BIOCHEMISTRY 31:10146-10152(1992).

-I- FUNCTION: COMPLEXES WITH METALLOPROTEINASES (SUCH AS COLLAGENASES) AND IRREVERSIBLY INACTIVATE THEM. ALSO MEDIATES ERYTHROPOLESIS IN VITRO; BUT, UNLIKE IL-3, IT IS SPECIES-SPECIFIC, STIMULATING THE GROWTH AND DIFFERENTIATION OF ONLY HUMAN AND MURINE ERYTHROID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 24-38.
TISSUE-SYNOVIAL FLUID;
MEDLINE; 92111776.
OSTHUES A., KNAUEPER V., OB
OSTHUES A., KNAUEPER V., OB
FEBS LETT. 296:16-20(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WILLIAMSON R.A., MARTSON F.A.O., ANG
MORRIS H.R., CARNE A.F., SMITH B.J.,
BIOCHEM. J. 268:267-274(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE; 94123576.
OPBROEK A., KENNEY M.C., BROWN D.;
CURR. EYE RES. 12:877-883(1993).
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MEDLINE; 86:205964.

CARMICHAEL D.F., SOMMER A., THOMPSON R.C., ANDER
WELGUS H.G., STRICKLIN G.P.;

PROC. NATL. ACAD. SCI. U.S.A. 83:2407-2411(1986)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MUTAGENESIS.
MEDLINE; 93041700.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFIDE BONDS, AND PARTIAL
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MATSUDA T., KOHNO K., KUWANO M.;
SUBMITTED (JUL-1992) TO EMBL/GENBANK/DDBJ DATA BANKS.
                         GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBMITTED (SEP-1995) TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HARDCASTLE A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
KACZOREK M., HONORE N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 1-40 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA CELL BIOL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                           :- SINILARITY: HIGH WITH OTHER MI
MBL; X03124; G37183; --
MBL; X02598; G31189; --
MBL; M59906; G189382; --
MBL; S68252; E119406; --
MBL; D51139; G220125; --
MBL; D11139; G220125; --
MBL; L47361; G994731; --
MBL; A10416; G490094; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PTM: THE ACTIVITY OF TIMP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFIDE BONDS
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                                                       PS00288; TIMP; 1
                                                                                                                                                               ZYHUEP.
A23534.
A35826.
                         METALLOPROTEASE INHIBITOR;
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                      ERYTHROCYTE MATURATION;
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S T.J.R.,
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RESULT 13
ID TIMI_RABIT
AC P20614;
DT 01-FEB-1991
DE METALLOPROTI
GN TIMPI.
OS ORVOTOLAGUS
OC EUTHERIA; LJ
RN [1]
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RP SEQUENCE FRO
RA HOROWITZ S.
RA QUIBLE D.J.;
RA GLYCOPROTEII
CC -!- SIMILARI
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01-FEB-1991 (REL. 17, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 1 PRECURSOR (TIMP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORYCTOLAGUS CUNICULUS (RABBIT)
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                        AND IRREVERSIBLY INACTIVATE -!- PTM: THE ACTIVITY OF TIMP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE; 89214135.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                     GLYCOPROTEIN;
                                                                                                                                                                                                                                    PROSITE; PS00288;
                                                                                                                                                                                                                                                                                                                                                          -!- FUNCTION: COMPLEXES WITH METALLOPROTEINASES
                                                                                                                                                                                                                                                                                                                                                                                                              HOROWITZ S., DAFNI N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EUTHERIA; LAGOMORPHA.
                                                                                                                                                                                                                                                                                                                                                                                               QUIBLE D.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  127
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                                                                                                                                                                                                                                                                                    SIMILARITY: HIGH WITH OTHER MEMBERS OF
                                                                                                                                                                                                                                                                                                         DISULFIDE BONDS
                                                                                                                                                                                                                                                   A33350; A33350.
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                             METALLOPROTEINASE I
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                                                                                                                                                                                                                 INHIBITOR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERTEBRATA; TETRAPODA; MAMMALIA;
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.27e-103;
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W REF. 7).
CRC32;
                                                                                                                                                                                                                 ERYTHROCYTE MATURATION;
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                                                                                                                                                                                                                                                                                                                                                                                                                  B.A.,
                                                                                                                                                                                                                                                                                        THE TIMP FAMILY
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AND DECCEPTARE REPORT OF THE PROPERTY OF THE P
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Best Local :
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                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OVIS ARIES EUKARYOTA;
                                                                                                                                                                                                                                                                                                CHAIN
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TIM1_SHEEP
P50122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMITH G.W., GOETZ T.L., ANTHONY R.V., SMITH M.F.;
ENDOCRINOLOGY 134:344-352(1994).
-!- FUNCTION: COMPLEXES WITH METALLOPROTEINASES (SUCH AS COLLAGENASES)
AND IRREVERSIBLY INACTIVATE THEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-OCT-1996 (REL.
01-OCT-1996 (REL.
METALLOPROTEINASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 94102210.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUTHERIA; ARTIODACTYLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      186 hqakffacikrsdgscaw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          127
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    127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68 riqyeikqikmfkgpdqdiefiytapaaavcgvsldiggkke-yliagkaegngnmhitl 126
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY: HIGH WITH OTHER MEMBERS L; S67450; G456990; -. SITE; PS00288; TIMP; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PTM: THE ACTIVITY OF TIMP-1 DISULFIDE BONDS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CSFVVPWNSLSFSQRSGFTKTYAAGCDMCTVFACASIPCHLESDTHCLWTDSSLGSD-KG
                                                                                                                                                   LLLL-WLTAPSRACTCVPPHPQTAFCNSEVVIRAKFVGTAEVNE-TALYQRYEIKMTK-M 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cdfivpwdtlsatqkkslnhryqmgce-ckitrcpmipcyisspdeclwmdwvtekning
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALASSMLLLLWLVAPSRACTCVPPHPQTAFCNSDLVIRAKFYGAPEVNHTT-LYQRYEIK
PWNSMSSAQRRGFTKTYAAGCEECTVFPCSSIPCKLQSDTHCLWTDQLLTGSDKGFQSRH 186
                                                               FKGFSALRDA-PDIRFIYTPAMESVCGYFHRSQNRSEEFLIAGQL-SNGHLHITTCSFVA 126
                                                                                                                           llllgtllpradacscspvhpggafcnadivirakavnkkevdsgndiygn-pikriqye 72
                                         ikqikmfkgpdqdiefiytapaaavcgvsldiggkke-yliagkaegngnmhitlcdfiv
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79; Conser
                                                                                                                                                                                                                                  Similarity
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METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                  207
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ilarity 39.9%;
Conservative
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                                                                                                                                                                                                                                                                                                  AA;
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93
122
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34, LAST SEQUENCE UPDATE)
34, LAST ANNOTATION UPDATE)
INHIBITOR 1 PRECURSOR (TIMP-1).
                                                                                                                                                                                                                                30.8%;
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                                                                                                                                                                                                        Score 508; DB 1;
Pred. No. 8.19e-10:
42; Mismatches 68
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METALLOPROTEINASE I
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
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Pred. No. 8.19e-103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38;
                                                                                                                                                                                                                                                                                                POTENTIAL.
890A6EEB CRC32;
                                                                                                                                                                                                                                                                                                                                   POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73;
                                                                                                                                                                                                              68;
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                                                                                                                                                                                                                                                    Length 207;
                                                                                                                                                                                                              Indels
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01-WAY-1991 (REL. 18, LAST SEQUENCE UPDATE)
01-WAY-1997 (REL. 35, LAST ANNOTATION UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 1 PRECURSOR (TIMP-1) (ERYTHROID
POTENTIATING ACTIVITY) (EPA) (TISSUE INHIBITOR OF METALLOPROTEINASES)
(COLLAGENASE INHIBITOR 16C8 FIBROBLAST) (TPA-INDUCED PROTEIN)
         CHAIN
DISULFID
DISULFID
                                                                                                                                                                                                EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBO J. 6:651-657(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MUS MUSCULUS (MOUSE EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TIM1_MOUSE
                                                                                                                                                                          EMBL;
                                                                                                                                                                                                                        EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. TISSUE=FIBROBLAST;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE; 87218524.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P12032; P20064
                                                      SIGNAL.
                                                                                                                                          EMBL; M17243; G202112;
EMBL; M28312; G193042;
                                                                                                                                                                 EMBL;
                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                   -!- SIMILARITY:
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                                                                                                                                                                                                                                                                                                                                                                                JOHNSON M.D., HOUSEY G.M., KIRSCHMEIER P.T., WEINSTEIN I.B.; MOL. CELL. BIOL. 7:2821-2829(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 8706
EDWARDS D.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIMP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TPA-S1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 88038821.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUCLEIC ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  187 LACLPREPGMCTW :||:|
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    191 facikrsdgscaw
                                                                           LYCOPROTEIN;
                                                                                                                                                                                                                                                                                       TISSUE SPECIFICITY: FOUND IN FETAL AND ADULT TISSUES. HIGHEST LEVELS ARE FOUND IN BONE. ALSO FOUND IN LUNG, OVARY AND UTERUINDUCTION: BY VIRUS.
                                                                                                                                                                                                                                                                                                                           . CELL. BIOL. 7:2821-2829(1987).

FUNCTION: COMPLEXES WITH METALLOPROTEINASES (SUCH AS COLLAGENASES) AND IRREVERSIBLY INACTIVATE THEM. ALSO MEDIATES ERYTHROPOIESIS IN VITRO; BUT, UNLIKE IL-3, IT IS SPECIES-SPECIFIC, STIMULATING THE GROWTH AND DIFFERENTIATION OF ONLY HUMAN AND MURINE ERYTHROID
                                                                                                                                                                                                                                                                              INDUCTION: REGULATED BY TUMOR PROMOTERS AND
                                                                                                                                                                                                                                                                   PROTEIN KINASE C
                                                                                                                                                                M28311; G193042;
X04684; G49704;
                                                                                                                                                                          M28308; G193042; JOINED.
M28309; G193042; JOINED.
M28310; G193042; JOINED.
M28311; G193042; JOINED.
                                                                                                                                                                                                            M28312; G193042;
M28308; G193042;
                                                                                                                                                                                                                                             SULFIDE BONDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OR TIMP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     87066763
                                                                                                                                                                                                                                                         THE ACTIVITY OF TIMP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RODENTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MOUSE)
  1
25
25
27
27
151
                                                                                                                                                                                                                                                                                                                                                                                                                                                 WATERHOUSE P., HOLMAN M.L., RES. 14:8863-8878(1986).
                                                                            METALLOPROTEASE INHIBITOR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OR TIMP.
                                                                                       TIMP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           199
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 24
205
94
123
148
197
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                                                                                                                                                                                                                                   WITH OTHER
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                                                                                                                                          1.7.3
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METALLOPROTEINASE 1
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                   MEMBERS OF
                                                                                                                                                                                                                                                         IS DEPENDENT ON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SKUP
                                                                             ERYTHROCYTE MATURATION;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DENHARDT
                                                                                                                                                                                                                                   THE TIMP FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            D.,
                                           INHIBITOR 1.
                                                                                                                                                                                                                                                         THE
                                                                                                                                                                                                                                                                               MITOGENS THROUGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WILLIAMS B.R.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             U
                                                                                                                                                                                                                                                         PRESENCE
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MPsrch_pp : מס ני protein - protein database search, using Smith-Waterman algorithm Mon May 4 14:47:31 1998; MasPar time 17.84 Seconds 519.169 Million cell updates/sec

bular output not generated.

Description: Perfect Score: Sequence: Title:

>R07954 (1-220) from a-geneseq.pep 1651 1 mgaaars1plafcllllgtl.....cawyrgaappkqefldiedp 220

Scoring table: PAM 150 Gap 11

Searched:

140555 seqs, 42109429 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

sptremb15 1:sp_fungi 2:sp_human 3:sp_invertebrate 4:sp_mammal 5:sp_mhc 6:sp_organelle 7:sp_bhage 8:sp_plant 9:sp_bacteria 10:sp_rodent 11:sp_virus 12:sp_vertebrate 13:sp_unclassified

Statistics: Mean 43.195; Variance 65.893; scale 0.656

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	Score	Query Match	Query Match Length	BB	ID .	Description	Pred. No.
1	1430	86.6	196	10	Q60453	CTISSUE INHIBITOR OF ME	0.00e+00
2	1285	77.8	220	12	042146		0.00e+00
w	817	49.5	224	Ŋ	Q99727	TISSUE INHIBITOR OF ME	4.20e-182
4	460	27.9	207	4	002722	TISSUE INHIBITOR OF ME	2.90e-87
ر.	. 455	27.6	. 176	10	P70533	METALLOPROTEINASE INHI	5.72e-86
o,	249	15.1	50	N	Q16121	TIMP-2-METALLOPROTEINA	1.95e-34
7	213	12.9	158	ω	Q21265	SIMILAR TO METALLOPROT	5.02e-26
&	99	6.0	38	10	Q61720	MESSENGER RNA FRAGMENT	1.60e-02
9	92	5.6	512	8	Q40271	MYO-INOSITOL-1-PHOSPHA	2.23e-01
10	92	5.6	668	ø	Q48297	HISTIDINE KINASE.	2.23e-01
11	91	5.5	376	8	Q39353	CELL WALL-PLASMA MEMBR	3.21e-01
12	. 89	5.4	113	10	Q61259	ABELSON MURINE LEUKEMI	6.61e-01
13	89	5.4	114	10	Q61260	ABELSON MURINE LEUKEMI	6.61e-01
. 14	89	5.4	115	N	Q13691	ABL PROTEIN (FRAGMENT)	6.61e-01
15	89	5.4	119	10	P97896	ABELSON MURINE LEUKEMI	6.61e-01
16	89	5.4	119	N	Q13915	C-ABL (FRAGMENT).	6.61e-01
17	89	5.4	138	10	Q61261	ABELSON MURINE LEUKEMI	6.61e-01
18	89	5.4	144	N	Q13848	BCR/C-ABL ONCOGENE PRO	6.61e-01
19	89	5.4	156	N	Q14020	BCR/C-ABL ONCOGENE PRO	6.61e-01
20	89	5.4	164	N	Q13690	HYPOTHETICAL PROTEIN (6.61e-01

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C-ABL PROTEIN, TYPE II C-ABL PROTEIN, TYPE IV BCR/ABL PROTEIN, TYPE IV BCR/ABL PROTEIN, TYPE IV SIMILAR TO S. CEREVISI SIMILAR TO S. CEREVISI PUTATIVE ABC-TRANSPORT PROTO-ONCOGENE TYROSIN PROTO-ONCOGENE TYROSIN PROTO-ONCOGENE TYROSIN PREDIPOCYTE FACTOR 1. ACYL-COA DESATURASE 1 FIBRONECTIN BINDING PR COSMID F18E9. TRUNCATED LYSOSOMAL AC ALPHA-MANNOSIDASE (EC LYSOSOMAL ALPHA-MANNOS LYSOSOM	
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ALIGNMENTS

RESUI ID	ОУ	Qy Db	Qy Db	рb	Que Bes Mai	O C C C C C C C C C C C C C C C C C C C	RESUI ID
RESULT 2 ID 042146 PRELIMINARY; PRT; 220 AA.	Db 182 GAAPPKQEFLDIEDP 196 	Db 122 HRYQMGCECKITRCPMIPCYISSPDECLWMDWYTEKSINGHQAKFFACIKRSDGSCAWYR 	Db 62 IEFIYTAPSSAVCGVSLDVGGKKEYLIAGKAEGDGKMHITLCDFIVPWDTLSTTQKKSLN	Db 2 ACSCSPVHPQQAFCNADVVIRAKAVSEKEVDSGNDIYGNPIKRIQYEIKQIKMFKGPDKD 	Query Match 86.6%; Score 1430; DB 10; Length Best Local Similarity 94.4%; Pred. No. 0.00e+00; Matches 184; Conservative 9; Mismatches 2; Indel:	AC Q6045; AC Q6045; DT 01-NOV-1996 (TREMBLREL. 01, CREATED) DT 01-NOV-1996 (TREMBLREL. 05, LAST SEQUENCE UPDATE) DT 01-JAN-1998 (TREMBLREL. 05, LAST ANNOTATION UPDATE) DT 101-JAN-1998 (TREMBLREL. 05, LAST ANNOTATION UPDATE) DE TISSUE INHIBITOR OF METARO POOTENNASE (FRAGMENT). OS CRICETULUS LONGICAUDATUS (LONG-TAILED HAMSTER) (CHINESE HAMSTER). OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA; OC EUTHERIA; RODENTIA. RN [1] RP SEQUENCE FROM N.A. RA SUZUKI Y.; RL SUBMITTED (NOV-1993) TO EMBL/GENBANK/DDBJ DATA BANKS. DR EMBL; X75924; G414877; DR PROSITE; PS00288; TIMP; 1. FT NON_TER 1 1 FT NON_TER 1 1 FT CHAIN 3 196 SEQUENCE 196 AA; 21941 MW; 2DE3230A CRC32;	ALIGNMENTS RESULT 1 ID Q60453 PRELIMINARY; PRT; 196 AA.
		IKRSDGSCA krsdgsca	DTLSTTQKK : dtlsatqkk	KQIKMFKGP kqikmfkgp	ength 196; Indels 0;	MAMMALIA;	
	•	WYR 181 WYF 205	SLN 121	DKD 61 odqd 85	Gaps	: iz)	
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                                                                                                                                                                                          099727;
01-MAY-1997 (TREMBLREL 03, CREATED)
01-MAY-1997 (TREMBLEEL 03, LAST SEQUENCE UPDATE)
01-MAY-1997 (TREMBLEEL 03, LAST ANNOTATION UPDATITISSUE INHIBITOR OF METALLOPROTEINASE 4.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METALOA; CHORDATA; VERTEBRATA; TETRAPOLEUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                     LT 3
Q99727
                                                                                                                       SEQUENCE
                                                                                                                                GREENE J., WANG M., RA)
SUBMITTED (JAN-1997) TO
EMBL; U76456; G1773293;
                                                                                                                                                             TISSUE-HEART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JAN-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQUENC
01-JAN-1998 (TREMBLREL. 05, LAST ANNOTAT
TISSUE INHIBITOR OF METALLOPROTEINASE-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.

SIMES R.T., LI L., WEAVER B., HAWKES S., I

SUBMITTED (SEP-1997) TO EMBL/GENBANK/DDBJ

EMBL; AF004664; G2352473; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GALLUS GALLUS
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                                                                                                                                                                       EQUENCE FROM N.A.
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   57
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         ASADP-ADTEKMLRYEIKQIKMFKGFEKVKDVQYITTPFDSSLCGVKLEANSQKQYLLTG 118
                                     KIVGGRQAKHYACIKRSDGSCAWYRGMAPPKQEFLDIEDP 220
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170; Conse
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                                                                                                                     224 AA;
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                                                                                Conservative
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                                                                                                                                                                                                                                                                                     PRELIMINARY;
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220 T
24313 MW;
                                                                                         49.5%;
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77.3%;
                                                                                                                                        RAYMOND L.A., LIU Y.E., RO
                                                                                                                      25502 MW;
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, LAST SEQUENCE UP
, LAST ANNOTATION
                                                                              Score 817; DB 2; Le
Pred. No. 4.20e-182;
59; Mismatches 57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1285; DB 12;
Pred. No. 0.00e+00;
25; Mismatches 22
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TISSUE INHIBITOR OF
; F477B394 CRC32;
                                                                                                                                                                                                                                                                                     PRT;
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                                                                                                                      EAF29A49 CRC32;
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                                                                                                                                                                                                      TETRAPODA;
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                                                                                                                                         ROSEN C.,
NATA BANKS.
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                                                                                                                                                                                                                                                                                                                            220
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                                                                                                                                                                                                     MAMMALIA;
                                                                                                                                         SHI Y.E.;
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                                 TISSUE-LIVER; BENYON R.C., ARTHUR INEDALE J.P., BENYON R.C., MURPHY G.; WINWOOD P.J., CLARK N., MURPHY G.; HEPATOLOGY 24:176-184(1996).
EMBL; L29512; GL550734; -.
NON_TER 1
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01-FEB-1997 (TREMBLREL.
01-FEB-1997 (TREMBLREL.
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      SEQUENCE
                                                                                                                                                                                                                                                                                                                     RATTUS NORVEGICUS (
EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P70533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EQUUS CABALLUS (HORSE).
EUKARYOTA; METAZOA; CHORDATA;
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                                                                                                                                                                                                                                                                                       EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                           TIMP-1
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01-JUL-1997
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Similarity 38.1%;
77; Conservation
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   AA;
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                                                                                                                                                                                                                                                                                                                                                          (RAT)
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   19659 MW;
                                                                                                                                                                                                                                                                                                                        CHORDATA;
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
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Pred. No. 2.
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LAST ANNOTATION UPDAT
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.90e-87;
CRC32;
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Matches
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Matches 69; Conservative
                                 WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M.,
BONFIELD J., BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A
CRAXTON M., DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L.,
GARDNER A., GREEN P., HAWKINS T., HILLIER L., JIER M., JOHNSTON L.,
JONES M., KERSHAW J., KIRSTEN J., LAISTER N., LATREILLE P.,
JONES M., KERSHAW J., KIRSTEN J., LAISTER N., LATREILLE P.,
LIGHTNING J., LLOYD C., MCMURRAY A., MORTINGE B., O'CALLAGHAN M.,
LIGHTNING J., LLOYD C., MCMURRAY A., MORTINGE B., O'CALLAGHAN M.,
PARSONS J., PERCY C., RIFKEN L., ROOPRA A., SAUDERS D., SHOWNKEEN
SMALDON N., SMITH A., SONNHAMMER E., STADEN R., SULSTON J.,
THIERRY MIEG J., THOMAS K., VAUDIN M., VAUGHAN K., MATERSTON R.,
MATERY MIEG J., THOMAS K., VAUDIN M., VAUGHAN K., MATERSTON R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q21265;
01-NOV-1996
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Q16121
                                                                                                                                                                                                                                                 STRAIN-BRISTOL N2;
MEDLINE; 94150718.
                                                                                                                                                                                                                                                                                                                                               CAENORHABDITIS ELEGIEUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILAR TO METALLOPROTEINASE
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01-NOV-1996 (TREMBLREL.
01-NOV-1996 (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q21265
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EMBL; S68860; E119468; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUKARYOTA; METAZOA;
EUTHERIA; PRIMATES.
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01-NOV-1996 (TREMBLREL.
                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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mes 35; Conser
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AZOA; ACOELOMATES;
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LAST ANNOTATION UPDATE)
E INHIBITOR 2 PRECURSORS
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Mismatches 64;
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No. 1.95e-34;
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Best Local Similarity
The hos 37; Conserv
266663000
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Best Local
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SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
WU X, LE TT.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LT 8
Q61720
                                                         01-NOV-1996 (TREMBLREL 01, 01-NOV-1996 (TREMBLREL 01, 01-JAN-1998 (TREMBLREL 05, MYO-INOSITOL-1-PHOSPHATE SYN
                                                                                                                                           Q40271;
                                                                                                                                                                                     Q40271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          THE C-TERMINAL PART MUS MUSCULUS (MOUSE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-FEB-1997 (TREMBLREL. 02, LAST ANNOTATION MESSENGER RNA FRAGMENT FOR MOUSE INTERFERON THE C-TERMINAL PART (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1996
01-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q61720;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBMITTED (APR-1996) TO EMBL; U53336; G1255824;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
CARYOPHYLLALES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WATERSTON R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE; 82247191.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1996 (TREMBLREL.
                                                                                                                                                                                                                                                                          172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MBL; V00755;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        UKUHARA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EUKARYOTA;
                                   MESEMBRYANTHEMUM CRYSTALLINUM (COMMON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   124 itlcdfivp 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120 TYLCGQYLP 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       67
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                                                                                                                                                                                                                                                                                                  2 CLWTDQVLVGS-EDYQSRHFACLPRNLGLCTW 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 LSLSLVILSVLIAVTLACKCREQSTKESFCNAHWVSHVKVKVRVGKQGLPEGSERKG--L
                                                                                                                                                                                                                                                                     clwmdwvtekninghqakffacikrsdgscaw
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       kriqyeikqikmfkgp-dqd-i-efiytapaaavcgvsldiggkkeyliagkaegngnmh 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A H., DE MAEYER-GUIGNARD J., DE ACIDS RES. 10:3069-3084(1982).

10755; G811965; -.
                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (APR-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                38 AA; 4390 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               158 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                40.6%;
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                                                                                                                                                                                                                                                                                                                                                       Score 99;
Pred. No.
7; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LAST
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Pred. No. 5.02e-26;
38; Mismatches 44
                                                                           LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
                                                                                                                       CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                  429816C2 CRC32;
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                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FBD8E38D CRC32;
                 ANGIOSPERMAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GEORGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE UPDATE)
ANNOTATION UPDAT
                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                       DB 1.
1.60e-02;
                                                                                                                                                                                     512
                                     ICE PLANT
                                                                                                                                                                                                                                                                          203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E H., WI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     38
                                                                                                                                                                                     A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TETRAPODA; MAMMALIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DATA BANKS
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                                                                           UPDATE)
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BETA (TYPE
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                   DICOTYLEDONEAE;
                                                                                                                                                                                                                                                                                                                                                                                                      Length
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Best Local S
Matches 1
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Best Local
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Best Local
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01-NOV-1996 (TREMBLREL.
01-NOV-1996 (TREMBLREL.
01-NOV-1996 (TREMBLREL.
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01-NOV-1996 (TREMBLREL.
01-NOV-1996 (TREMBLREL.
01-NOV-1996 (TREMBLREL.
                                                                                                                                                                                               01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-NOV-1996 (TREMBLREL. 01, LAST ANNOTATION UPDATE)
CELL WALL-PLASMA MEMBRANE LINKER PROTEIN.
                                                                                                                                                                                                                                                                   LT 11
Q39353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LT 10
Q48297
                                                                                  STRAIN-CV. COBRA;
GOODMIN W.G., PALLAS J.A., JENKINS G.I.;
GOODMIN W.G., PALLAS J.A., JENKINS G.I.;
SUBMITIED (JAN-1996) TO EMBL/GENBANK/DDBJ DATA
EMBL; X94976; E218269; -
SEQUENCE 376 AA; 38667 MW; FDSD37DD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                            RUDOLPH J., OESTERHELT D.;
EMBO J. 14:667-673(1995)
EMBL; X86445; G671100; -
SEQUENCE 668 AA; 71931 MW;
                                                                                                                                                                   BRASSICA NAPUS (RAPE).
EUKARYOTA; PLANTA; EMBRYOPHYTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE; 95188871.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HALOBACTERIUM SALINARIUM
ARCHAEBACTERIA; EURYARCH
                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                            CAPPARALES; CRUCIFERAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HISTIDINE KINASE.
                                                                                                                                                                                                                                                                                                                               549 VESGGEEYGIPIKTVD-EISRMKSVKSVDGEEVITY 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  y Match 5.6%;
Local Similarity 38.9%;
hes 14; Conservative
                                          y Match 5.5%;
Local Similarity 44.1%;
hes 15; Conservative
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vdsgndiygnpikriqyeikqikmfkgpdqdiefiy 90
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5.6%;
Similarity 34.6%;
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                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EURYARCHAEOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             56758 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01,01
                                                                                                                                                                                                                                                                                                                                                   Score 92; D
Pred. No. 2.
9; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 92; D
Pred. No. 2.
13; Mismatc
                                         Score 91; D
Pred. No. 3.
10; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BORNHOUSER A., MICHALOWSKI C.B.,
                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                              3D4B7F92 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HALOBACTERIALES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8F97FE26 CRC32;
                                                                                                                                                                   ANGIOSPERMAE;
                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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                                      DB 8; ...
3.21e-01;
7;
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                                                                                                                                                                                                                                                                                                                                                              DB 9; I
2.23e-01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 8; L
2.23e-01;
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                                                                                                                                                                                                                                                                                                                                                     12;
                                                              Length 376
                                                                                                                                                                   DICOTYLEDONEAE;
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                                         Gaps
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                                                                        RESULT
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ID Q61259
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                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                      Query Match 5.4%;
Best Local Similarity 42.1%;
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 5.4%;
Best Local Similarity 42.1%;
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE; 86133550.
BEN-NERTAH Y, BERNARDS A.,
CELL 44:577-586(1986).
CEMBL; M12263; G191561; -.
      013691;
01-NOV-1996
01-NOV-1996
01-NOV-1996
ABL PROTEIN
                                                                                                                                                                                                                                                                                                             Q61260;
01-NOV-1996
01-NOV-1996
01-JAN-1998
                                                              LT 14
Q13691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q61259;
01-NOV-1996 (TREMBLREL.
01-NOV-1996 (TREMBLREL.
01-JAN-1998 (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                          LT 13
Q61260
                                                                                                                                                                                    MGD; MGI
NON_TER
                                                                                                                                                                                                      EMBL;
                                                                                                                                                                                                                                                                ABL,
MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                 CELL
                                                                                                                                                                                                                          BEN-NERIAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MGD; MGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABL.
MUS MUSCULUS (MOUSE)
FIRARYOTA; METAZOA;
                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE; 86133550.
                                                                                                                                                                                                                                                                                                   ABELSON MURINE LEUKEMIA
                                                                                                                                                                                                                                                               EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABELSON MURINE LEUKEMIA
                                                                                                45 KENLLAGPSENDPNLFVALYDFVASGDNTLSITKGEKL 82
|| |:|| :| :| :| ||: :| ||| |
108 keyliagkaegngnmhitlcdfivpwd-tlsatqkksl 144
                                                                                                                   46 KENLLAGPSENDPNLFVALYDFVASGDNTLSITKGEKL 83
                                                                                                                                                                                                     NERIAH Y., BERNARDS
44:577-586(1986).
; M12264; G191563;
                                                                                                                                                                                    MGI:87859; ABL.
TER 114 114
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FER 113 1
              (TREMBLREL.
(TREMBLREL.
(TREMBLREL.
                                                                                                                                                                                                                                                                                                           (TREMBLREL.)
(TREMBLREL.)
                                                                                                                                                                           114 AA;
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                                                             PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      113
12519 MW;
                                                                                                                                                                           12820 MW;
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000COGENE
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                                                                                                                                              6.61e-01;
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6.61e-01;
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01-MAY-1997 (TREMBLREL.
01-MAY-1997 (TREMBLREL.
01-JAN-1998 (TREMBLREL.
                                                                                                                                                                                                                    EMBL; K03228; G191559; ...
EMBL; X07539; G49838; ...
EMBL; M12266; G53852; ...
MGD; MGI:87859; ABL.
NON_TER 119 119
SEQUENCE 119 AA; 13013
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MEDLINE; 85240529.

SHITVELMAN E., LITSHITZ B., GALE R.P., CANAANI E.;

NATURE 315:550-554(1985).

EMBL; M30833; G553164; -.

NON_TER 115 115

SEQUENCE 115 AA; 12628 MW; A9E82733 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABL.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; RODENTIA.
                                                                 51 KENLLAGPSENDPNLFVALYDFVASGDNTLSITKGEKL 88
|| |:|| :| :| :| ||: :| ||| |
108 keyliagkaegngnmhitlcdfivpwd-tlsatqkksl 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
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|| |:|| :| :| ::| ||: :| ||| |
108 keyliagkaegngnmhitlcdfivpwd-tlsatqkksl 144
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                                                                                                                                                                                                                                                                                                                                       NCOGENE 2:297-304(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                   EDLINE; 86133550.
EN-NERIAH Y., BERNARDS A., PASKIND M., DALEY G.Q., BALTIMORE D.;
ELL 44:577-586(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BELSON MURINE LEUKEMIA
                                                                                                                                                                                                                                                                                                                                                                         EQUENCE OF 1-26 FROM N.A. TRAIN-BALB/C; TISSUE-LIVER; 88202920.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                      PASKIND M., BALTIMORE D.;
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                                                                                                                                                                                                                        119
13013 MW;
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0NCOGENE (C-ABL PROTEIN) (FRAGMENT).
                                                                                                                                             Score 89; DB 10;
Pred. No. 6.61e-01;
8; Mismatches 13
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Pred. No. 6.61e-01;
8; Mismatches 13; Indels
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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

on: Mon May 4 14:51:51 1998; MasPar time 9:10 Seconds 361.220 Million cell updates/sec Jular output not generated.

Title: >R07955

Description: (1-220) from a-geneseq.pep
Perfect Score: 1643
Sequence: 1 mgaaartlrlalgllllatl.....cawyrgaappkqefldiedp 220
Scoring table: PAM 150
Gap 11

Searched: 120837 seqs, 14945562 residues

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: a-geneseq31 1:part1 2:par

1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part9 10:part10 11:part11 12:part12 13:part13 14:part14 15:part15 16:part16 17:part17 18:part18 19:part19 20:part20 21:part21 22:part22 23:part23 24:part24 25:part25 26:part26

Statistics: Mean 32.207; Variance 121.307; scale 0.265

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

																			Result	
19	. 18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	w	Ν	ш	No.	
672	683	685	686	687	695	695	718	842	844	1337	1377	1396	1454	1550	1550	1643	1643	1643	Score	
40.9	41.6	41.7	41.8	41.8	42.3	42.3	43.7	51.2	51.4	81.4	83.8	85.0	88.5	94.3	94.3	100.0	100.0	100.0	Query Match 1	ø
188	211	198	212	206		211	211 :	224	224 :	177	192	186	194	220		220	220	220	Length 1	
25	3	15	13	13	ü	15	25	8	23	N	N	N	2	N	12	N	2	ω	80	
W30308	R65001	R84216	R65002	R65014	R72598	R84215	W30310	R98265	W25603	R06897	R06895	R06896	R06898	R07954	R62768	R07955	R62769	R65009	Ħ	
Human TIMP-3.	Mouse tissue inhibito	TIMP-3 clone-2 produc	Chicken tissue inhibi	Human tissue inhibito	TIMP-3 metalloprotein	TIMP-3 clone-7 produc	Human TIMP-1/TIMP-3 f	Tissue inhibitor of m	Tissue inhibitor of m	Part of TIMP-2 metall	Metalloproteinase inh	Part of TIMP-2 metall	Complete sequence of	Bovine metalloprotein	Bovine metalloprotein	Human metalloproteina	Human metalloproteina	Human tissue inhibito	Description	
2.65e-60	1.61e-61	9.70e-62	7.52e-62	5.83e-62	7.60e-63	7.60e-63	2.16e-65	3.61e-79	2.16e-79	9.82e-135	2.99e-139	2.14e-141	5.97e-148	8.23e-159	8.23e-159	2.41e-169	2.41e-169	2.41e-169	Pred. No.	

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P60275 P60275 P60786 P60786 R65003 R65003 P60593 P60593 P60594 R65004 R765008 R766094	R65000 R84217 R65006
Sequence of a human pasequence of tissue in Human TIMP-1. Cattle tissue inhibit Sequence of a gibbon Mouse tissue inhibitor Pig tissue inhibitor Pig tissue inhibitor Pig tissue inhibitor Peptide #1 for detect Metalloproteinase inh Peptide #3 for detect Metalloproteinase inh N-terminal sequence o Immunogenic TIMP-2 pe Peptide #2 for detect Tryptic digestion pro Tissue inhibitor of memoral sequence or Immunogenic TIMP-2 per Peptide #2 for detect Tryptic digestion pro Tissue inhibitor of memoral sequence or Immunogenic TIMP-2 per Peptide #2 for detect Tryptic digestion pro Tissue inhibitor of memoral sequence or Tryptic digestion pro N-terminal of monocyt	inhibitor of CM-3 clone p issue inhibi
1.01e-43 1.01e-43 1.01e-43 1.01e-43 2.76e-43 2.76e-42 9.25e-42 9.25e-39 1.02e-38 1.02e-38 1.02e-07 1.20e-07 1.21e-05 7.21e-05 7.21e-04 4.11e-04 4.11e-04 9.44e-04 9.44e-04 9.44e-04 9.44e-04 9.44e-04 9.41e-03 9.27e-03	1.92e-56 1.52e-47 6.12e-44

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                                                                                                                                                                                                                                                                          Matches
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Claim 8; Fig 2; 65pp; English.

Claim 8; Fig 2; 65pp; English.

Claim 8; Fig 2; 65pp; English.

may be used to inhibit tumour cell dissemination and for treat rheumatoid arthritis, dystrophic epidermolysis bullosa, emphysiand osteoporosis. The DNA may be used to detect MI gene disort sequence 220 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-MAY-1990;
19-MAY-1989;
29-MAR-1990;
                          Human metalloproteinase inhib Tumour; chemotherapy; cancer;
                                             R07955;
21-FEB-1991 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human metalloproteinase inhibitor.

Metalloproteinase inhibitor; tumour cell dissemination; rheumatoid arthritis; dystrophic epidermolysis bullosa; emphysema; osteoporosis; MI gene disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R62769;
13-JUL-1995
Homo sapiens.
Key
                   scleroderma; cholesteatoma
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R07955 standard;
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(CHIL-) CHILDRENS HOSPITAL
Boone TC, Declerck YA, La
WPI; 94-343309/43.
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R62769
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l Similarity 100.0%;
220; Conservative
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; US-355027.
; US-501904.
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No. 2.41e-169;
                         e product.
disease;
                                                                                                                                                                                                                                                                                                                       olysis bullosa, emphysema
detect MI gene disorders
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Best Local S
Matches 22
                                                                                                                                                                   EP-623676-A.
09-NOV-1994.
18-MAY-1990; 305433.
19-MAY-1999; US-355027.
29-MAR-1990; US-501904.
(AMGE-) AMGEN INC.
(CHIL-) CHILDRENS HOSPITAL LABONE TC. DECLETCK YA, Lanwers 194-343309/43.
N-PSDB; 973087.
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EP-398753-A.
22-NOV-1990.
18-MAY-1990; 305433.
19-MAY-1989; US-355027.
29-MAR-1990; US-501904.
New metallo:proteinase inhibitor, analogues and treating tumour cell dissemination, rheumatoid large-scale recombinant inhibitor prodn. Claim 12; Fig 1; 65pp; English. Q73087 encodes R62768 bovine metalloproteinase
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The product has therapuetic use in inhibiting tumour dissemination during chemotherapy and radiation therapy, impurged bone marrow cel harvesting etc. The inhibitor may also be useful in encapsulating tumours aiding clean excision, and in treatment of enphysema, Paget disease, osteoporosis, scleroderma and bedsores.

The gene product also has application in autoimmune disorders eg. see also Q06583.

See also Q06583.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               emphysema;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bovine metalloproteinase inhibitor cell dissemination; Metalloproteinase inhibitor; tumour cell dissemination; rheumatoid arthritis; dystrophic epidermolysis bullosa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R62768 standard;
R62768;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-JUL-1995 (first entry)
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Pred. No. 2.41e-169;
0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New metallo-proteinase inhibitor polypeptide(s) encoding them, for treatment of tumour cell dissenting them arthritis
                                                                                                                                                                                                                                                                                                                                                            See also Q06584.
                                                                                                                                                                                                                                                                                                                                                                                tumours aiding clean excision, and in treatment of enphysema, disease, osteoporosis, scleroderma and bedsores. The gene product also has application in autoimmune disorders rheumatoid arthritis and multiple sclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 12; Fig 1; 63pp; English.

The product has therapuetic use in inhibiting tumour dissemination during chemotherapy and radiation therapy, impurged bone marrow ce. harvesting etc. The inhibitor may also be useful in encapsulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; Q06583.
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Tumour; chemotherapy; cancer;
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(CHIL-) CHILDREN'S HOSPITAL OF
Langley KE, Boone TC, DeClerck
WPI; 90-350481/47.
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US-501904.
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ncer; Paget's disease; o
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Pred.
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Pred. No. 8.23e-159;
12; Mismatches 6;
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Best Local :
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See also 005937, R06746-R06750, R06894-R06895 and 005938-Q05939.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-MAR-1990; US-494/70.
13-MAR-1990; US-494/70.
(USSH ) NAT INST OF HEALTH.
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Synthetic.
US7494796-A.
21-AUG-1990.
                                16-JAN-1991 (first entry)
Part of TIMP-2 metalloproteinase
matrix metalloproteinase inhibito
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diagnosis, detection and purificm...
Disclosure; Fig 7; 54pp; English.
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US7494796
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                                                                 R06896;
16-JAN-1991
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18-AUG-1989;
                                                                                              R06896 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                         l Similarity
193; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                 194 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein;
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teinase inhibitor; TIMP-2;
                                                                                                                                                                                                                                                                                                                                                                                    88.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              54pp;
                                                                                              186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LA,
                                                                                                                                                                                                                                                                                                                                                                        Score 1454; DB 2;
Pred. No. 5.97e-148;
0; Mismatches 1:
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                                         inhibitor,
or; TIMP-2;
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                                      encoded pss15.
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pss38.
                                                                                                                                                                                                                                                                                                                                                                                                    Length 194;
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                                                                                                                                                                                                                                                                                                                                                                          Indels
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                                                      clone
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Best Local
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See also Q05937,
See also Q05937,
                                                                                                                                                                      21-AUG-1990.
13-MAR-1990;
21-MAR-1989;
17-JUL-1989;
18-AUG-1989;
13-MAR-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-MAR-1990;
21-MAR-1989;
17-JUL-1989;
18-AUG-1989;
18-AUG-1989;
13-MAR-1990;
                                                                                                                                                                                                                                                            16-JAN-1991 (first entry)
Metalloproteinase inhibitor TIMP-2.
matrix metalloproteinase inhibitor; TIMP-2 (CSC-21K).
Synthetic.
US7494796-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     diagnosis, detection and purificn..

Disclosure; Fig 6A; 54pp; English.

TIMP-2 was isolated from human melanoma cell-conditioned media and the amino acid sequence determined. A probe was synthesised based upon the protein sequence information. It was used to screen a Lambadgem-4 cDNA library prepared from human melanoma cells. 239 positives were identified from a total of 750,000 plaques screened. Further analysis and screening with additional probes eliminated all but two clones (pSSIS and pSSIS). Both were sequenced and found to encode CSC-2IK (~TIMP-2), a novel metalloproteinase inhibitor. This is the amino acid sequence deduced from the cDNA sequence of
New matrix metallo-proteinase inhibitor - used to treat diseases resulting from matrix metallo-proteinase activity and in diagnosis, detection and purificn.

Disclosure; Fig 5; 54pp; English.

Protein was isolated from human melanoma cell-conditioned media | gelatin-affinity chromatography.

It inhibits matrix metalloproteinases and can be used to treat diseases such as arthritis, diabetes, cancer, ulcers of mucosa alepithelial tissues, autoimmune-mediated inflammation, lung injuring
                                                                                                                            (USSH ) NAT INST OF HEALTH.
Stetler-Sevenson WG, Liotta LA,
WPI; 90-290097/38.
                                                                                                                                                                                                                                                                                                                                  R06895 standard;
R06895;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New matrix metallo-proteinase inhibitor - used to treat diseases resulting from matrix metallo-proteinase activity and in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (USSH) NAT INST OF HEALTH.
Stetler-Sevenson WG, Liotta LA, Krutzsch
WPI; 90-290097/38.
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US-326334.

US-380431.

US-395453.

US-494796.
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US-326334.
US-380431.
US-395453.
US-494796.
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larity 99.5%;
Conservative
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Pred. No. 2.
1; Mismatc
                                                                                                                                             Krutzsch HC
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2.14e-141
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Best Local
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21-AUG-1990.
13-MAR-1989; US-326334.
21-MAR-1989; US-380431.
17-UL-1989; US-395453.
18-AUG-1989; US-395453.
13-MAR-1990; US-494796.
(USSH ) NAT INST OF HEALTH.
Stetler-Sevenson WG, Liotta
MPI, 90-290097/38.
                                                                                                                                                                                                                                                                         Disclosure; Fig 6B; 54pp; English.

Disclosure; Fig 6B; 54pp; English.

TIMP-2 was isolated from human melanoma cell-conditioned media and the amino acid sequence determined. A probe was synthesised based upon the protein sequence information. It was used to screen a LambdaGem-4 cDNA library prepared from human melanoma cells. 239 positives were identified from a total of 750,000 plaques screened. Further analysis and screening with additional probes eliminated all but two clones (pSS15 and pSS18). Both were sequenced and found to encode CSC-21K (-TIMP-2), a novel metalloproteinase inhibitor. This is the amino acid sequence deduced from the cDNA sequence of
                                                                                                                                                                                                              See also Q05937, R
Sequence 177 AA;
                                                                                                                                                                                                                                                                 pss18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-JAN-1991 (first entry)
Part of TIMP-2 metalloproteinase inhibitor, encoded by
matrix metalloproteinase inhibitor; TIMP-2; pSS18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              granulomatous diseases and myocardial infarctions. It can also be used as a birth control agent by preventing embryo/placental attachment or invasion. Other therapeutic benefits may also be obtd. in diseases with basement destruction or myocyte destruction. See also Q05937, R06746-R06750, R06894 and Q05938-Q05940.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                diagnosis, detection and purificm..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New matrix metallo-proteinase inhibitor - used to resulting from matrix metallo-proteinase activity
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US7494796-A.
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aappkqefldied 219
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                                                                                                        ch 81.4%;
l Similarity 100.0%;
177; Conservative
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llarity 96.4%;
Conservative
                                                                                                                                                                                                                                   R06746-R06750, R06894-R06895, Q05938 and Q05940.
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                                                                                                     Score 1337;
Pred. No. 9.
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Pred. No. 2.99e-139;
1; Mismatches 5;
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9.82e-135;
0;
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RESULT
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Best Local Similarity
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ulcers or lesions.
Sequence 224 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  growth, osteoarthritis, osteoporosis, pulmonary emphysema, periodontal disease and rheumatoid arthritis, and for contraception. TIMP-4 cDNA can be used for gene therapy of such disorders and in diagnostic assays for TIMP-4 mRNA in cells and tissues. Oligonucleotide fragments of the TIMP-4 cDNA and antagonists or inhibitors of TIMP-4 can be used to treat disorders associated with over-expression of TIMP-4, e.g. to promote healing of corneal and diabetic ulcers and ulcers/lesions caused by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA encoding a tissue inhibitor of metallo:proteinase(s), TIMP-4 for production of recombinant protein for treating tumours, arthritis, etc., and for contraception claim 1; Fig 1; 24pp; English.

This sequence is a tissue inhibitor of metalloproteinases designated TIMP-4. The CDNA clone was identified with Incyte Clone No. 589345.

TIMP-4 can be used to treat disorders associated with excessive metalloprotease expression, e.g. tumour metastasis, angiogenesis and metalloprotease expression, e.g. tumour metalloprotease expression e.g. tumour metalloprotease e.g. tumour metalloprotease e.g. 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (INCY-) INCYTE PHARM INC. Hawkins PR, Murry LE; WPI; 97-350238/32.
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18-JAN-1996; 588163
18-JAN-1996; US-588
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kaegdgkmhitlcdfivpwdtlsttqkkslnhryqmgceckitrcpmipcyisspdeclw 174
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ilarity 48.2%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note-
47..51
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Pred. No. 2.16e-79;
53; Mismatghes 56
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Best Local
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Claim 14; Fig 1; 49pp; English.
Human tissue inhibitor of metalloproteinase-4 (TIMP-4) (R98265)
                                                                                                      Human TIMP-1/TIMP-3 fusion protein. TIMP-3; human; antibody; TIMP-3-mediated cancer progression; TIMP-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     diagnostic processes.
Sequence 224 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Recombinant TIMP-4 can be expressed in e.g. E. coli, COS or insect cell hosts. It can be used to treat patients in need of TIMP-4 (e.g. cancer, arthritic diseases, bone resportion diseases, Paget's disease, hyperparathyroidism and cholesteatoma), and to screen for antagonists useful for treating patients in need of TIMP-4 inhibition (e.g. for tissue repair and remodeling). It can also be used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-0CT-1996 (first entry)
Tissue inhibitor of metalloproteinase-4 (TIMP-4).
Tissue inhibitor of metalloproteinase-4; TIMP-4; cancer; arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA encoding human tissue inhibitor of metalloproteinase-4 (TIMP-4) useful to treat, e.g. cancer, arthritic diseases, bone resorption
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 J09235300-A
                             Misc-difference
                                                                                                                                                                                    W30310 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         is a novel member of the TIMP family. It deduced from a CDNA clone (T34433) obtd.
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Greene JM, Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Key
                                                            Misc-difference
                                                                                        Homo sapiens.
                                                                                                                                                       29-JAN-1998 (first entry)
                                                                                                                                                                      W30310;
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13-DEC-1994; WO-U14498
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human brain.
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                                                                                                                                                                                                                                                  175 mdwvtekninghqakffacikrsdgscawyrgaappkqefldiedp
                                                                                                                                                                                                                                                                                                               115 kaegdgkmhitlcdfivpwdtlsttqkkslnhryqmgceckitrcpmipcyisspdeclw
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Local Similarity 48.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          109;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a cDNA clone (T34433) obtd. from an early stage The sequence shows 48% identity to human TIMP-2.
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                             24.
                                                                       Location/Qualifiers
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              /note-
                                            /note= "TIMP-1 fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /label= Mat_protein
                                                                                                                                                                                      Protein; 211
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Pred. No. 3.61e-79;
52; Mismatches 57
                                                                                                                                                                                                                                                                                                                                 Its amino acid sequence
                                                                                                                      disease; malignant tumour cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          57;
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29-FEB-1996; 057484.
29-FEB-1996; JP-067484.
(FUJY) FUJI PHARM IND CO LTD.
WPI; 97-498341/46.
N-PSDB; T92632.
New tissue initation, emphysical cancer, inflammation, emphysical calculation of the cancer, inflammation, emphysical cancer, inflammation, emphysical cancer, inflammation, emphysical cancer, inflammation, emphysical cancer cancer and cancer cance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TIMP-3 proteins. This sequence was used to test the specificity of the monoclonal antibody (MAb) of the invention. The MAb of the invention reacts specifically with human TIMP-3 (see W30308), by specific recognition of the TIMP-3 fragments represented by W30305-W30307. The MAL can be used in the study or diagnosis of TIMP-3-mediated diseases, particularly for the detection of malignant tumour cells, or the diagnosis of progressiveness of cancers. They can also be used in establishing an immunoassay for TIMP-3 or in purification of TIMP-3. The transformed cells can be used for producing TIMP-3 or its equivalent proteins on a large scale. The immunoassay method for TIMP-3 the MAbs is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human TIMP-3 and anti-human TIMP-3 monoclonal antibodies - used diagnosis of TIMP-3 mediated diseases, especially the detection malignant tumour cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Key
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TIMP-3 clone-7 product.
TIMP-3; tissue inhibitor metalloproteinase type three;
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                                                                                                                                                                                                     Koski RA, Silbige
WPI; 95-155259/20.
N-PSDB; T02359.
                                                                                                                                                                                                                                                                                                     04-OCT-1994; U11241.
06-OCT-1993; US-134231.
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                                                                                                                                                                                                                                                                                                                                                                                                                                      modified_site
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
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                                                                                                                                                                                                                                                                                (AMGE-) AMGEN INC.
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Pred. No. 2.:
52; Mismatcl
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1.16e-65;
ches 55;
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                                                                                                                                                                                                                                                                                                                                                                                     disorders, infection, opthalmic disorders, corneal ulceration, orthopaedic disorders, osteoporosis, autoimmune diseases and coorthopaedications include as medicinal components of cosmetic topical compositions. Antibodies to TIMP-3 may be used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          inflammation, arthritis, cancer
Claim 6; Page 39; 56pp; English.
TIMP-3 is useful in the treatment of inflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; Q86744.

DNA encoding human monocyte/macrophage metallo:proteinase inhibitor useful e.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-APR-1995.
07-OCT-1994; U11599.
07-OCT-1993; US-133956.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      connective tissue disorders, periodontal disease, dermatological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wilde
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (INCY-) INCYTE PHARM INC. Delegeane AM, Levine WB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 opthalmic disorders; corneal ulceration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       periodontal disease; dermatological disorders;
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95; Conser
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211 AA;
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                                                                                                                                                                                                                                        Score 695;
Pred. No. 7.
56; Mismatc
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Pred. No. 7.60e-63;
56; Mismatches 55;
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diseases of connective tissues.
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Search completed: Mon May Job time: 26 secs.
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Best Local Similarity 43.9%;
Matches 93; Conservative
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New human tissue inhibitor of metallo:proteinase-3 - used to develop prods. for diagnosis, therapy or prophylaxis of conditions with unwanted matrix metallo:proteinase activity. Disclosure: Fig 11: 87pp; English.

Ruman TIMP-3 can be used for the diagnosis, therapy or prophylaxis of conditions characterized by excess or unwanted matrix metalloproteinase activity, e.g. neoplasias, tumor metastasis, inflammatory disorders such as rheumatoid arthritis, ulcerations, reaction to infection, periodontal disease or osteoporosis. It can also be used in drug screening/design.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-FEB-1995
12-AUG-1994; U09188.
12-AUG-1993; US-105263.
13-DEC-1993; US-167463.
(REGC) UNIV CALIFORNIA.
Hawkes SP, Kishnani NS,
WPI, 95-098775/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-OCT-1995 (first entry)
Human tissue inhibitor of metalloproteinase (TIMP-3).
Tissue inhibitor of metalloproteinase; diagnostic; therapeutic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R65014 standard; Protein; 206
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183 inghqakffacikrsdgscawyrgaappkqefidiedp 220
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189 kffac1krsdgscawyrgaappkqef1diedp 220
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              4 14:52:17 1998
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                                                                                                                                                                                                                                                                                                       Score 687; DB 13; 1
Pred. No. 5.83e-62;
54; Mismatches 53;
                                                                                                                                                                                                                                                                                                                                    Length 206;
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n on: Mon May 4 14:50:16 1998; MasPar time 14.00 Seconds 574.110 Million cell updates/secubular output not generated.

Title: >R07955

Description: (1-220) from a-geneseq.pep
Perfect Score: 1643
Sequence: 1 mgaaartlrlalgllllatl....

ence: 1 mgaaart1rla1g1111at1.....cawyrgaappkqef1diedp 220

Scoring table: PAM 150 Gap 11

120446 seqs, 36531193 residues

Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

Database: pir56

Statistics:

pir56 1:pir1 2:pir2 3:pir3 4:pir4 5:nrl3d

Mean 43.039; Variance 80.153; scale 0.537

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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<pre>gag-abl-pol polyprote</pre>	alkaline proteinase (CD24 precursor - rat	hydrogenase isoenzyme	metalloproteinase inh	collagenase inhibitor	metalloproteinase inh	metalloproteinase inh	TIMP-1 - sheep		metalloproteinase inh	metalloproteinase tis	matrix metalloprotein	metalloproteinase tis	metalloproteinase inh		metalloproteinase inh	-		*metalloproteinase inh	metalloproteinase inh	tissue inhibitor of m	metalloproteinase inh	Description
1.48e-01	1.08e-01	1.08e-01	3.44e-04	3.74e-39	8.86e-78	5.46e-81	2.03e-81	6.41e-83	2.39e-83	1.45e-83	3.30e-84	3.30e-84	9.74e-119	4.72e-120	4.72e-120	5.01e-122	1.14e-294	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	Pred. No.

44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24
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kinase-related transf protein-tyrosine kina	chondroadherin precur	hypothetical BCR/ABL	hypothetical BCR/ABL	protein-tyrosine kina		channel associated pr	integrin beta-7 chain	histidine kinase – Ha	hypothetical protein	platelet glycoprotein	TRAP-like protein pre	homolog of Drosophila	homolog of Drosophila	putrescine transport	delta-like dlk homeot	homeotic protein dlk	c-kit-related kinase	heat-stable antigen-r	heat-stable antigen M	probable membrane pro
3.26e+00 3.26e+00	3.26e+00	3.26e+00	3.26e+00	3.26e+00	1.79e+00	2.42e+00	2.42e+00	2.42e+00	2.42e+00	1.79e+00	1.79e+00	1.32e+00	1.32e+00	9.75e-01	9.75e-01	9.75e-01	5.25e-01	3.84e-01	3.84e-01	2.04e-01

ALIGNMENTS

RESULT

	Wilhelm, S.; He, C.	
	Goldberg, G.I.; Marmer, B.L.; Grant, G.A.; Eisen, A.Z.;	#authors
	A34415	REFERENCE
	##experimental_source serum-free culture medium of A2058 cells	##exper
	123-149,'Q',151-174,'T',176-219 ##label ST2	
	lues 27-77,'K',79-81,'I',83-100,'E',102-117;119-121,'R',	##resid
	ule_type protein	##molec
	A34464	#accession
	eren	#cross-ref
	of the metalloproteinase inhibitor family.	•
	Tissue inhibitor of metalloproteinase (TIMP-2). A new member	#title
	J. Biol. Chem. (1989) 264:17374-17378	#journal
	Stetler-Stevenson, W.G.; Krutzsch, H.C.; Liotta, L.A.	#authors
	A34464	REFERENCE
	##experimental_source fetal aorta cDNA library	##exper
	references GB:M32304; NID:q187522; PID:q307195	##Cross
	ues 1-220 ##label BOO	##residues
	ule	##molec
	B35996	#accession
	#cross-references MUID: 90207285	#cross-ref
	related to tissue inhibitor of metalloproteinases.	
	cDNA cloning and expression of a metalloproteinase inhibitor	#title
	Proc. Natl. Acad. Sci. U.S.A. (1990) 87:2800-2804	#journal
	Boone, T.C.; Johnson, M.J.; De Clerck, Y.A.; Langley, K.E.	#authors
	A35996	REFERENCE
	##experimental_source A2058 melanoma cell cDNA library	##exper
	##cross-references GB:J05593; NID:g339706; PID:g339707	##cross
	ues 1-220 ##label STE	##residues
	##molecule_type mRNA	##molec
	A37128	#accession
	#cross-references MUID:90338014	#cross-ref
	expression in tumor cell lines and human tumor tissues.	
	Tissue inhibitor of metalloproteinases-2 (TIMP-2) mRNA	#title
	J. Biol. Chem. (1990) 265:13933-13938	#journal
	Liotta, L.A.	"duction o
	Station-Stevenson & G . Brown D D . Onisto M . Tovy A T .	# authors
	\$37130 \$37130	
	A37128; B35996; A34464; A34415; S21303; S20319; S17165;	ACCESSIONS
	05-Sep-1997	
	08-Mar-1991 #sequence_revision 12-Apr-1996 #text_change	DATE
	#formal name Homo sapiens #common name man	ORGANTSM
chon	metalloproteinase inhibitor 2 precursor - humanALTERNATE_NAMES	TITLE
	A37128 #type complete	ENTRY

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#map_position
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39-152,154-201,
159-164,172-193
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#title Isolation and characterization of tissue inhibitors of metalloproteinases (TIMP-1 and TIMP-2) from human rheumatoid synovial fluid.
#cross-references MUID:92111776
                                                                                                                                                                                                                                                                                                                                                                                         #description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #gene
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p_position 17q25-17q25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ##status preliminary
##molecule_type protein
##residues 27-37 ##lab
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protein
27,'X',29,'X',31-38 ##label
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##residues 'X',28,
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##residues 30-51;124-141;159-173 ##label GOL
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      220;
    h 100.0%;
Similarity 100.0%;
220; Conservative
                                                                                                                                                                                                                                                                                                                     regulation of extracellular matrix remodeling by inhibition of matrix metalloproteinases; TIMP-1 and TIMP-2 complex specifically with progelatinase B and progelatinase A, respectively, possibly controlling their activation; TIMP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ward, R.V.; Hembry, R.M.; Reynolds, J.J.; Murphy, Blochem. J. (1991) 278:179-187
The purification of tissue inhibitor of metallopring its 72 kDa progelatinase complex.
                                                                                                                                                                                                                                                            respectively, possibly controlling their activation; nand TIMP-2 possess erythroid potentiating activity superfamily metalloproteinase inhibitor erythropoiesis; extracellular matrix; metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Purification of an angiogenesis inhibitor from culture medium conditioned by a human chondrosarcoma-derived chondrocytic cell line, HCS-2/8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Takahashi, K.; Takigawa, M.
Biochim. Biophys. Acta (1995) 1245:1-8
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submitted to the EMBL Data Library, Au
Nucleotide sequence of a TIMP-II cDNA.
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                                                                              #disulfide_bonds #status predicted
th 220 #molecular-weight 24399 #
                                                                                                                                                                                  #domain signal sequence #status predicted #label
#product metalloproteinase inhibitor 2 #status
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    Pred.
                                        Score 1643;
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                                          DB 1;
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ibrary, August
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                                        Length 220;
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Best Local
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                                                                                                                                                                                                                      121 KMHITLCDFIVFWDTLSITQKKSLNHRYQMGCECKITRCPMIPCYISSPDECLWMDWVTE 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ##residues 1-220 ##label
##cross-references GB:S72594;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ##molecule_type mRNA
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                                                                                                                                                                                                                                                                                                                                                               99.2%;
Similarity 98.2%;
               $45683; $20325; $60160
$45683
                                              #formal_name Rattus norvegicus
10-Dec-1994 #sequence_revision
                                                                       metalloproteinase inhibitor 2 precursor - ratALTERNATE_NAMES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Martelli, M.L.; Salvatore, D.; Fusco, A.

Exp. Cell Res. (1994) 213:398-403

Cloning of the rat tissue inhibitor of metalloproteinases
type 2 (TIMP-2) gene: analysis of its expression in norm
                                                                                                                                                                                                                                                                                                                                                                                                   #superfamily #length 220
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    153415
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Martelli, M.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tissue inhibitor of metalloproteinase type 02-Aug-1996 #sequence_revision 02-Aug-1996
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                                      12-Apr-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             type 2 (TIMP-2) gene: analysis and transformed thyroid cells.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       preliminary; translated
  T.F.; Burke, J.S.;
                                                                                                *type complete
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NID:g619232;
 Bergman,
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                                              #common_name Norway rat
10-Nov-1995 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                  PID:g619233
 K.D.;
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 Quinn,
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C.O.; Jeffrey,
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39-152, 154-201,
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##residues 27-48 ##label
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                                                                                                                                                                                                                                                                                                                                                                                                                 Match 99.2%;
Local Similarity 98.2%;
                                                                                                                                                                                                                                                                                                                                                                 1 MGAAARTIRLAIGILLLATILRPADACSCSPVHPQQAFCNADVVIRAKAVSEKEVDSGND 60
                                                                                                                                                                                                                                                             mgaaartlrlalgllllatllrpadacscspvhpqqafcnadvvirakavsekevdsgnd
                                                                                                                                                                KSINGHQAKFFACIKRSDGSCAWYRGAAPPKQEFLDIEDP 220
                                                                                                                                                                                                 KMHITLCDFIVPWDTLSITQKKSLNHRYQMGCQCKITRCPMIPCYISSPDECLWMDWVTE 180
                                                                                                                                                                                                                                                                                                                                                                                                  216;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 regulation of extracellular matrix remodeling by inhibition of matrix metalloproteinases; TIMP-1 and TIMP-2 complex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      J.J.; Partridge, N.C.
Arch. Biochem. Biophys. (1994) 311:313-320
Cloning and regulation of rat tissue inhibitor of
metalloproteinases-2 in osteoblastic cells.
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metalloproteinase inhibitor 2 precursor - mouseALTERNATE_NAMES #formal_name Mus musculus #common_name house mouse 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                               #length
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#superfamily metalloproteinase inhibitor
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#product metalloproteinase inhibitor 2 #status predicted
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                                                                #type complete
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                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1630; DB 2;
Pred. No. 0.00e+00;
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39-152,154-201,
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#accession $15987
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##residues 1-11,'H',13-20,'L',22-194,'E',196-220 ##label LEC
##cross-references GB:M93954; NID:g202053; PID:g202054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ##cross-references EMBL:X62622; NID:g54801; PID:g54802
##experimental_source 3T3 fibroblast, strain Balb/c
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##residues 27-46,'H',48,50-53,'VD',56,'DY' ##label KIS
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                                                                                                1 MGAAARSLRLALGLLLLASLVRPADACSCSPVHPQQAFCNADVVIRAKAVSEKEVDSGND
IYGNPIKRIQYEIKQIKMFKGPDKDIEFIYTAPSSAVCGVSLDVGGKKEYLIAGKAEGDG 120
                                                                                mgaaartlrlalgllllatllrpadacscspvhpqqafcnadvvirakavsekevdsgnd
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JH0683; JC1234
JH0683
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Gene (1992) 117:209-217
Differential regulation of TIMP-1 and TIMP-2 mRNA expression
in normal and Ha-ras-transformed murine fibroblasts.
                                                                                                                                                                                                                                                                                                                                                                                                                specifically with progelatinase B and progelatinase A, respectively, possibly controlling their activation; TIMP-1 and TIMP-2 possess erythroid potentiating activity #superfamily metalloproteinase inhibitor erythropoiesis; extracellular matrix; metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     regulation of extracellular matrix remodeling by inhibition of matrix metalloproteinases; TIMP-1 and TIMP-2 complex
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kishi, J.I.; Ogawa, K.; Yamamoto, S.; Hayakawa, T. Matrix (1991) 11:10-16
Purification and characterization of a new tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Leco, K.J.; Hayden,
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                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                    inhibitor; mitogen
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27-46, 'HIX',50-52, 'LX',55-56, 'DXX',60,'X',62 ##label KI2
this sequence has been revised in reference S18428
                                                                                                                                                                                                                                                                                                                 #domain signal sequence #status predi
#product metalloproteinase inhibitor
experimental #label MAT\
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97.3%;
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                                                                                                                                                            Pred.
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                                                                                                                                                                                Score 1620; DB 2;
Pred. No. 0.00e+00;
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                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TIMP-2) from mouse colon
                                                                                                                                                                                                                                            24328
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                                                                                                                                                                                                                                                                                                                                                        predicted #label SIGN
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26 tumor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #authors Boone, T.C.; Johnson, M.J.; De Clerck, Y.A.; Langley, K.E.
#journal Proc. Natl. Acad. Sci. U.S.A. (1990) 87:2800-2804
#title cDNA cloning and expression of a metalloproteinase inhibitor
related to tissue inhibitor of metalloproteinases.
#cross-references MUID:90207285
#accession A35996
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27-41,'C',43-55,'EX',58-59,'X',61-66,'XS',69-71 ##label
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##residues 27-71 ##label DEC
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##cross-references GB:M32303; NID:g163341; PID:g163342
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                                                                                                                                                                   regulation of extracellular matrix remodeling by inhibition of matrix metalloproteinases; TIMP-1 and TIMP-2 complex specifically with progelatinase B and progelatinase A, respectively, possibly controlling their activation; TIMP
                                                                                                             and TIMP-2 possess erythroid potentiating activity superfamily metalloproteinase inhibitor erythropoiesis; extracellular matrix; metalloprotein
                                                                                                                                                                                                                                                                          annotation;
                                                                                                                                                                                                                                                                                      Characterization of the functional domain of tissue inhibitor of metalloproteinases-2 (TIMP-2).
                                                                                                                                                                                                                                                                                                                                                                     DeClerck, Y.A.; Yean, T.D.; Lee,
                                                                                                                                                                                                                                                                                                                                 Biochem. J. (1993) 289:65-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Purification and partial amino acid sequence of a bovine
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16-Nov-1990 #sequence_revision 12-Apr-1996 #text_change
105-Sep-1997
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                        #domain signal sequence #status predicted #label sign
#product metalloproteinase inhibitor 2 #status predic
#label MATN
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130-177,135-140,
148-169
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39-152,154-201,
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122 HRYQMGCECKITRCPMIPCYISSPDECLWMDWVTEKSINGHQAKFFACIKRSDGSCAWYR 181
                                    86 iefiytapssavcgvsldvggkkeyliagkaegdgkmhitlcdfivpwdtisttgkksln 145
                                                        62 IBFIYTAPSSAVCGVSLDVGGKKEYLIAGKABGDGKMHITLCDFIVPWDTLSTTQKKSIN 121
                                                                                                               26 acscspvhpqqafcnadvvirakavsekevdsgndiygnpikriqyeikqikmfkgpekd 85
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Similarity 99.0%;
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Similarity 91.8%;
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                                                                                                                                                                                                                                                                              #disulfide_bonds #status predicted
#length 196 #checksum 7766
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06-Jan-1995 #sequence_revision 12-Apr-1996 #text_change
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#length 220 #molecular-weight 24355 #checksum
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1-15,'W',17,'T',20-21,'PR',24-201,'X',203-211 ##label
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'X',25,'XX',28,'X',30-35,'X',37,'X',39-41 ##label KIS
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##cross-references EMBL:X76227; NID:g495251; PID:g495252
##molecule_type mRNA
                                                                                                                                                                ##experimental_source fibroblast cell line WI-38
                                                                                                                                                                                         **cross-references EMBL: Z30183; NID: g520931; PID: g520932
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Cloning of cDNAs encoding human TIMP-3, a novel member of the
tissue inhibitor of metalloproteinase family.
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                                                          Cloning of the cDNA encoding human tissue inhibitor of metalloproteinases-3 (TIMP-3) and mapping of the TIMP3 gene
                                                                                                                                                                                                                                                                                                                                                                                  J. Biol. Chem. (1994) 269:18953-18960
A novel member of human tissue inhibitor of
                                                                                                                                                                                                                                                                                                                                                                                                                                 Wick, M.; Buerger, C.; Bruesselbach, S.; Mueller, R.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Identification and characterization of human tissue inhibitor of metalloproteinase-3 and detection of three additional metalloproteinase inhibitor activities in extracellular
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kishnani, N.S.; Staskus, P.W.; Yang, T.T.; Masiarz, F.R.; Hawkes, S.P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Silbiger, S.M.; Jacobsen, V.L.; Cupples, R.L.; Koski,
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                    A49614
                                                                                                    Apte, S.S.; Mattei, M.G.; Olsen, B.R. Genomics (1994) 19:86-90
                                                                                                                                                                                                                                                                                                                                        metalloproteinases (TIMP) gene family is regulated during Gl progression, mitogenic stimulation, differentiation, and
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                                     chromosome
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36-143,145-192,
150-155,163-184
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#title
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Seilhamer, J.J.
$filhamer, J.J.
BNA Cell Biol. (1994) 13:711-718
#title Cloning and characterization of
metalloproteinases-3.
#cross-references MUID:95290091
#accession 153025
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#map_position 22q12.1-22q13.2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ##residues
                                                                                                                                                                                         174 YPGYQSKHYACIRQKGGYCSWYRGWAPPDKSIINATDP 211
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123 hitlcdfivpwdtlsttqkkslnhryqmgceckitrcpmipcyisspdeclwmdwvtekn 182
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##residues 'X',25,'X',27-35,'X',37 ##label
                                                                                                                                                                183 inghqakffacikrsdgscawyrgaappkqefldiedp 220
                                                                                                                                                                                                                                                                                                             114 YTGLCNEVERWDQLTLSQRKGLNYRYHLGCNCKIKSCYYLPCEVTSKNECLWTDMLSNFG 173
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Local Similarity 43.6%;
hes 95; Conservation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      regulation of extracellular matrix remodeling by inhibition of matrix metalloproteinases
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J. Biol. Chem. (1995) 270:14313-14318
The gene structure of tissue inhibitor of metalloproteinases
(TIMP)-3 and its inhibitory activities define the distinct
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TIMP-1 and TIMP-3 have distinct but overlapping
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                   metalloproteinase inhibitor 3 precursor - mouseALTERNATE_NAMES
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#length 211 #molecular-weight 24145 #
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#formal_name Mus musculus #common_name house
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56; Mismatches 5
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1-211 ##label APT
##cross-references GB:L19622; NID:9438810; PID:9438811; GB:U26433;
GB:U26434; GB:U26435; GB:U26436; GB:U26437;
NID:91167532; PID:91167534
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'X',25,'X',27-34 ##label AP2
##residues
'X',25,'X',27-34 ##label AP2
##note
a soluble recombinant form in
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##cross-references GB:L27424; NID:g439881; PID:g439882
##note not glycosylated when expressed by mon
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                                                                                                   anti-inflammatory agents
TIMP-1 and TIMP-3 have distinct but overlapping
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gene encoding a novel murine tissue inhibitor of metalloproteinases (TIMP), TIMP-3, is expressed in developing mouse epithelia, cartilage, and muscle, located on mouse chromosome 10.
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The gene structure of tissue inhibitor of metalloproteinases (TIMP)-3 and its inhibitory activities define the distinct
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Cancer Res. (1994) 54:1139-1144
Molecular cloning of five mesnger RNAs differentially
expressed in preneoplastic or neoplastic JB6 mouse
epidermal cells: one is homologous to human tissue
inhibitor of metalloproteinases-3.
                                                                                                                                                    transcription induced by cytokines,
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                                               #superfamily metalloproteinase inhibitor
extracellular matrix; metalloproteinase
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                                                                              tissue-specific expression patterns
                                                                                                                                                                             of matrix metalloproteinases
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                                                                                                                                                                                                                                                                                                                                                   1-211 ##label
                                                                                                                                                                                                                                                                                                                                                                                       preliminary; translated from GB/EMBL/DDBJ
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domain signal sequence #status predicted #label
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S.S.; Hayashi, K.; Seldin, M.F.; Mattei, M.G.; Hayashi,
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NID:g438810;
                                          metalloproteinase inhibitor
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                                                                                                                                                  tumor promoters,
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36-143,145-192,
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                                                                                                                                                                                                       ##molecule_type protein
##residues 26-51,'I',53 ##label STA
##experimental_source cultured embryonic
                                                                                                                                                                                ##note
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ##molecule_type mRNA
1-212 ##label
                                                                                                                                                                                                                                                                                                                                                                                                                         ##cross-references GB:M94531; NID:g211901; PID:g211902
##experImental_source ten-day old embryo cDNA library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  174 YPGYQSKHYACIRQKGGYCSWYRGWAPPDKSISNATDP 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      114 YTGLCNEVERWDHLTLSQRKGLNYRYHLGCNCKIKSCYYLPCFVTSKNECLWTDMLSNFG 173
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Local Similarity 43.1%;
les 94; Conservation
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                tissue-specific expression patterns superfamily metalloproteinase inhibitor
                                                                                                                                                                                                                                                                                              Staskus, P.W.; Masiarz, F.R.; Pallanck, L.J.; Hay J. Biol. Chem. (1991) 266:449-454
The 21-kDa protein is a transformation-sensitive metalloproteinase inhibitor of chicken fibrobli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pavloff, N.; Staskus, P.W.; Kishnani,
J. Biol. Chem. (1992) 267:17321-17326
A new inhibitor of metalloproteinases
                                               anti-inflammatory agents
TIMP-1 and TIMP-3 have distinct but overlapping
                                                                                    of matrix metalloproteinases transcription induced by cytokines,
                                                                                                                     regulation of extracellular matrix remodeling by inhibition
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                                                                                                                                                                      sarcoma virus
contains disulfide bonds; not glycosylated;
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gth 211 #molecular-weight 24182 #
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Pred. No. 4.72e-120;
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metalloproteinase
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                                                                                    tumor promoters, and
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37-144,146-193,
151-156,164-185
                                                                                                                Query Match
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                                                                                                                                                                                                                                 24-211
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                                                                                                                                                                                                                                                                                                                                                                                                   ##experimental_source chondrosarcoma
This protein is a matrix-bound glycoprotein, that is a
the tissue inhibitor of metalloproteinase family and
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ##residues 1-211 ##label WUI
##cross-references GB:UZ7201; NID:g971205; PID:g971206
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ##molecule_type mRNA
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Local Similarity 45.2%;
nes 90; Conservative
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                                                                                          Local
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                                                                           h 41.4%;
Similarity 42.7%;
93; Conservative
                                                                                                                                                                                                                                                                                                                                                                                     down-regulates matrix metalloproteinase activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wu, I.; Moses, M.A.
Gene (1996) 168:243-246
Cloning and expression of the cDNA encoding rat tissue inhibitor of metalloproteinase 3 (TIMP-3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        metalloproteinase tissue inhibitor 3 - ratALTERNATE_NAMES formal_name Rattus norvegicus #common_name Norway rat 10-Apr-1996 #sequence_revision 24-May-1996 #text_change 08-Sep-1997
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extracellular matrix; glycoprotein; meta
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#product metalloproteinase tissue inhibitor 3 #status
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#binding_site carbohydrate (Asn) (covalent) #status
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                                                                           Score 680; DB 2; Length 211; Pred. No. 9.74e-119; 56; Mismatches 57; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ##residues 1-207 ##label FOR 1-207 ##cross-references GB:L37295; NID:g561545; PID:g561546
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                                                                                                                                                                                                                                            123 SFVAPWNSLSLAQRRGFTKTYTVGCEECTVFPCLSIPCKLQSGTHCLWTDQLLQGSEKGF 182
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ##molecule_type mRNA
                                                                                                                                                                                                                                                                                    69 iqyeikqikmfkgpekdiefiytapssavcgvsldvggkke-yliagkaegdgkmhitlc
                                                                                                                                                                                                                                                                                                            66 TK-MYKGFQAL-GDAADIRFVYTPAMESVCGYFHRSHNRSEEFLIAGKLQ-DGLLHITTC 122
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                                                                                                                   qakffacikrsdgscaw 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This protein, a member of the tissue inhibitor of matrix metalloproteinase family, is a secreted glycoprotein which functions through formation of a 1:1 complex with matrix metalloproteinase and influences the proteinase activity. It has a role as a physiological molecule for limiting vascular smooth muscle cell proliferation and migration after arterial injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                               31.7%;
Similarity 41.1%;
81; Conservati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gene (1995) 163:267-271 Cloning and characterization of a cDNA encoding the baboon tissue inhibitor of matrix metalloproteinase-1 (TIMP-1).
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metalloproteinase tissue inhibitor 1 precursor
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Pred. No. 3.30e-84;
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                    #cross-references MUID:91355647
#accession A48417
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#title Molecular characterization and expression of the gene encoding human erythroid potentiating activity.
#cross-references MUID:85240567
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#cross-references_MUID:86040463
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                                                                                                                                                                                                                                                                                                               ##molecule_type mRNA
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##residues 24-44,'L',46 ##label STR
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##cross-references GB:M12670; NID:g182482; PID:g182483
##note parts of this sequence were confirmed by protein
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DNA Cell Biol. (1990) 9:479-485
Characterization of three abundant mRNAs from human ovarian
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Human skin fibroblast collagenase inhibitor.
                                                               Cytokine (1991) 3:231-239
The cytokine-protease connection: identification of a 96-kD THP-1 gelatinase and regulation by interleukin-1 and cytokine inducers.
                                                                                                                                                                                  Van Ranst, M.; Norga, K.; Masure, S.; Proost,
Vandekerckhove, F.; Auwerx, J.; Van Damme, ;
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Primary structure and cDNA cloning of human fibroblast
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A93372; A93363; A23534; A20595; A35826; A48417; S20318;
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protein
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##cross-references GDB:119615; OMIM:305370
#map_position Xpl1.3-Xpl1.23
CLASSIFICATION #superfamily metalloproteinase inhibitor
KEYWORDS erythropoiesis; glycoprotein; metalloproteinase inhibitor;
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#cross-references MUID:91285112
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                                                                                                                                                                                                                                                                       ##experimental_source polymorphonuclear leukocytes

This protein, found in a variety of body fluids, complexes with
metalloproteinases, irreversibly inactivating them. It also
mediates erythropoiesis in vitro; but, unlike II-3, it is
species-specific, stimulating the growth and differentiation
only human and murine erythroid progenitors.

The remarkable heat stability of this protein may be due to
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ##molecule_type protein
##residues 24-38 #;
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INCE A38978
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##residues 'X',25,
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##experimental_source monocytic cell line THP-1
##note sequence modified after extraction from NCBI backbone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ##experimental_source rheumatoid synovial fluid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ##molecule_type protein
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                                                                                                                                                                                                                                                             disulfide bond formation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Triebel, S.; Blaeser, J.; Gote, T.; Pelz, G.; Schueren, E
Schmitt, M.; Tschesche, H.
Bur. J. Biochem. (1995) 231:714-719
Evidence for the tissue inhibitor of metalloproteinases-1
(TIMP-1) in human polymorphonuclear leukocytes.
                                                                                                                                                                                                                   GDB:TIMP1; CLGI; TIMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S6646:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Opbroek, A.; Kenney, M.C.; Brown, D.
Curr. Eye Res. (1993) 12:877-883
Characterization of a human corneal metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biochem. J. (1990) 268:267-274
Disulphide bond assignment in human tissue inhibitor of metalloproteinases (TIMP).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           I52912
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Opdenakker, G.; Masure, S.; Proost, P.; Billiau, A.; van
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       annotation; disulfide bonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEBS Lett. (1991) 284:73-78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S20318
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                                                                                              mrtogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  inhibitor (TIMP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   T.J.R.; Freedman,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Panico, M.; Morris, H.R.; Carne, A.F.; Smith, B.J.; Harris,
#domain signal sequence #status predicted #label SIG\
#product metalloproteinase inhibitor 1 #status
experimental #label MAT\
                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-38 ##label TRI
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FEATURE
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REFERENCE
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Matches
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36-147,150-196,
155-160,168-188
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#accession A33350
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1-206 ##label HOR
##cross-references GB:J04712; NID:g165742; PID:g165743
##cross-references GB:J04712; NID:g165742; PID:g165743
##cross-references GB:J04712; NID:g165742; PID:g165743
##cross-references GB:J04712; NID:g165743
##cross-references GB:J04712; NID:g165743
##cross-references GB:J04712; NID:g165743
##cross-references GB:J04712; NID:g165743
##cross-references GB:J04712; NID:g165742; PID:g165743
##cross-references GB:J04712; NID:g165742; PID:g165742; PID:g165742; PID:g165742; PID:g165742; PID:g165743; PI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           69 iqyeikqikmfkgpekdiefiytapssavcgvsldvggkke-yliagkaegdgkmhitlc 127
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             regulation of extracellular matrix remodeling by inhibition of matrix metalloproteinases; TIMP-1 and TIMP-2 complex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R.H.; Quible, D.J.
J. Biol. Chem. (1989) 264:7092-7095

Hyperoxic exposure alters gene expression in the lung.

Induction of the tissue inhibitor of metalloproteinases mRNA and other mRNAs.
                                                                                                                                                                                                                                                                                                                            tissue-specific expression patterns
#superfamily metalloproteinase inhibitor
erythropolesis; extracellular matrix; glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                      anti-inflammatory agents
TIMP-1 and TIMP-3 have distinct but overlapping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and TIMP-2 possess erythroid potentiating activity transcription induced by cytokines, tumor promoters, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           metalloproteinase inhibitor 1 precursor - rabbitALTERNATE_NAMES
#formal_name Oryctolagus cuniculus #common_name domestic
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larity 41.1%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       specifically with progelatinase B and progelatinase A, respectively, possibly controlling their activation; TIMP-1
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#binding_site carbohydrate (Asn) (covalent) #status
#disulfide_bonds #status predicted\
#binding_site carbohydrate (Asn) (covalent) #status
                                                                                                                                                #domain signal sequence #status predicted #label SIG\
#product metalloproteinase inhibitor 1 #status predicted
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Pred. No. 3.30e-84;
39; Mismatches 70
                                                                                                                                                                                                                                                                                                     mitogen
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##residues 24-37 ##label KAC
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##residues 24-52,'
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##cross-references GB:M60073; NID:g163760; PID:g163761
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Similarity 40.1%;
79; Conservation
                                                                                                                                                               Bio/Technology (1987) 5:595-598
Molecular cloning and synthesis of biologically active human tissue inhibitor of metalloproteinases in yeast.
Moses, M.A.; Sudhalter, J.; Langer, R. Science (1990) 248:1408-1410 Identification of an inhibitor of neovascularization
                                                                                                                                                                                                                                                                                                                                                                                                                                   Langley, K.E.
J. Biol. Chem. (1989) 264:17445-17453
Purification and characterization of two related but distinct
                                                                                                                                                                                                                                                                                                                                                           B34468
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Pred. No. 1.45e-83;
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155-160,168-189
53,101
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#title Tissue inhibitor of metalloproteinases (TIMP-1) produced by
granulosa and oviduct cells enhances in vitro development
of bovine embryo.
#cross-references_MUID:94257757
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             123 SFVAPWNSMSSAQRRGFTKTYAAGCEECTVFPCSSIPCKLQSDTHCLWTDQLLTGSDKGF 182
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##residues 1-207 ##label SAT
##cross-references GB:S70841; NID:g546973; PID:g546974
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##residues 24-51 ##label MOS
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Local Similarity 39.6%;
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TIMP-1 and TIMP-3 have distinct but overlapping
tissue-specific expression patterns
#superfamily metalloproteinase inhibitor
erythropoiesis; extracellular matrix; glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             regulation of extracellular matrix remodeling
                                                                                                                                                         TIMP-1 - sheepORGANISM
21-Feb-1997 #sequence_revision
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Smith, G.W.; Goetz, T.L.; Anthony, R.V.; Smith, M.F
                                                                                                                                                                                                                                                                                                  146964
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#binding_site carbohydrate (Asn) (compared to the compared to the com
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#product metalloproteinase inhibitor 1 #status
experimental #label MAT\
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                                                                                                                                                              #formal_name Ovis sp. #common_name sheep
21-Feb-1997 #text_change
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             by inhibition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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                                                                                                                                                                                                                                                                                                                                                                                     SUMMARY
                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION
                                                                                                                                                                                                                                                                                        sest Local Similarity 39.2%; Matches 76; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #journal
#title
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #accession
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  #cross-references MUID:94102210
   190
                                     186 HLACLPREPGMCTW 199
                                                                                                                                                                                                                                                                                                                                                                               ##residues 1-207 ##label SMI
##cross-references GB:67450; NID:g456989; PID:g456990
FICATION #superfamily metalloproteinase inhibitor
## #length 207 #molecular-weight 23057 #chec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ##status
                                                                       131 vpwdtlsttqkkslnhryqmgce-ckitrcpm1pcy1sspdeclwmdwvtekninghqak 189
                                                                                                            126 APWNSMSSAQRRGFTKTYAAGCEECTVFPCSSIPCKLQSDTHCLWTDQLLTGSDKGFQSR 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ##molecule_type mRNA
                                                                                                                                                                                                                         72 eikqikmfkgpekdiefiytapssavcgvsldvggkke-yliagkaegdgkmhitlcdfi 130
                                                                                                                                                                                           83
ffacikrsdgscaw 203
                                                                                                                                                                                       MFKGFSALRDAP-DIRFIYTPAMESVCGYFHRSQNRSEEFLIAGQL-SNGHLHITTCSFV 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  I46964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Endocrinology (1994) 134:344-352
Molecular cloning of an ovine ovarian tissue inhibitor of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      metalloproteinases: ontogeny of messenger ribonucleic a expression and in situ localization within preovulatory follicles and luteal tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                      Score 515; DB 2;
Pred. No. 6.41e-83;
42; Mismatches 69
                                                                                                                                                                                                                                                                                                        69;
                                                                                                                                                                                                                                                                                                                                          Length 207;
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                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             acid
                                                                                                                                                                                                                                                                                                        7;
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Search completed: Mon May 4 14:50:46 1998 Job time: 30 secs.

MPsrch_pp : no n: protein - protein database search, using Smith-Waterman algorithm Mon May 4 14:51:04 1998; MasPar time 15.16 Seconds 610.953 Million cell updates/sec

oular output not generated.

Description: Perfect Score: Sequence: >R07955 (1-220) from a-geneseq.pep 1643

1 mgaaartirlalglillati.....cawyrgaappkqefidiedp 220

Scoring table: PAM 150 Gap 11

140555 seqs, 42109429 residues

Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

sptremb15
1:sp_fungi 2:sp_human 3:sp_invertebrate 4:sp_mammal
5:sp_mhc 6:sp_organelle 7:sp_phage 8:sp_plant
9:sp_bacteria 10:sp_rodent 11:sp_virus 12:sp_vertebrate
13:sp_unclassified

Statistics: Mean 43.550; Variance 66.095; scale 0.659

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

20	19	18	17	16	15	14	13	12	11	10	9		7	6	5	4	ω	2		Result
90	90	90	90	90	90	95	95	96	99	99	100	100	208	306	448	474	844	1313	1466	Score
5.5	ა ა	5.5	5.5	5.5	5.5	5.8	5.8	5.8	6.0	6.0	6.1	6.1	12.7	18.6	27.3	28.8	51.4	79.9	89.2	Query Match
325	325	325		289			512	141	325		384	383	158	50		207	224	220	196	Query Match Length DB
2	N	N	10	9	11	12	œ	10	4	10	9	6	w	N	5	4	N	12	0	8
000181	989660	Q92765	P97401	028420	041968	091909	Q40271	Q61692	Q95117	Q61720	Q56365	Q62779	021265	Q16121	P70533	002722	Q99727	042146	Q60453	ΕŪ
FRITZ.	FREZZLED.	FRZB PRECURSOR.	SECRETED FRIZZLED-RELA	HYPOTHETICAL 32.9 KD P	TEGUMENT PROTEIN.	C-KIT-RELATED KINASE 1	MYO-INOSITOL-1-PHOSPHA	HSA-C GENE CODING FOR	FRZB PRECURSOR.	MESSENGER RNA FRAGMENT	THERMOSTABLE ALKALINE	PREADIPOCYTE FACTOR 1.	SIMILAR TO METALLOPROT	TIMP-2-METALLOPROTEINA	METALLOPROTEINASE INHI	TISSUE INHIBITOR OF ME	TISSUE INHIBITOR OF ME	TISSUE INHIBITOR OF ME	BISSUE INHIBITOR OF ME	Description
5.25e-01	5.25e-01	5.25e-01	5.25e-01	5.25e-01	5.25e-01	8.35e-02	8.35e-02	5.73e-02	1.82e-02	1.82e-02	1.24e-02	1.24e-02	7.32e-25	2.70e-48	2.29e-84	3.95e-91	4.37e-190	0.00e+00	0.00e+00	Pred. No.

90 5.5 668 9 Q48297 HISTIDINE KINASE. 89 5.4 113 10 Q612269 ABELSON MURINE LEUKEMI 89 5.4 115 2 Q13691 ABELSON MURINE LEUKEMI 89 5.4 119 10 P97896 ABELSON MURINE LEUKEMI 89 5.4 119 2 Q13915 ABELSON MURINE LEUKEMI 89 5.4 119 2 Q13915 C-ABL FROMENT). 89 5.4 138 10 Q61261 ABELSON MURINE LEUKEMI 89 5.4 144 2 Q13848 BOR/C-ABL ONCOGENE PRO 89 5.4 164 2 Q13690 HYPOTHETICAL PROTEIN (TYPE II 89 5.4 181 10 Q61253 C-ABL PROTEIN, TYPE II 89 5.4 182 10 Q61254 C-ABL PROTEIN, TYPE II 89 5.4 187 10 Q61254 C-ABL PROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 187 10 Q61254 C-ABL PROTEIN, TYPE II 89 5.4 187 10 Q61254 C-ABL PROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 284 2 Q13692 BOR/ABL FROTEIN, TYPE II 89 5.4 385 10 Q62263 STROMAL CELL DERIVED PROTEIN 89 5.4 1149 2 Q13890 BOR/ABL FROTEIN GUBNICAL CELL DERIVED PROTEIN 89 5.4 33 Q23275 SIMILAR TO S. CEREVISI 80 5.4 385 12 Q91225 GLUTAMATE RECEPTOR SUBNICAL CELL DERIVED RUBNICAL CELL DERIVED
.5 668 9 048297 HISTIDINE .5 668 9 048297 HISTIDINE .4 1113 10 061259 ABELSON MU .4 114 10 061260 ABELSON MU .4 115 2 013691 ABELSON MU .4 119 10 P97896 C-ABL (FRA .4 119 2 013915 C-ABL (FRA .4 114 2 013848 BCR/C-ABL .4 116 2 013690 HYPOTHETIC .4 116 2 013690 C-ABL PROT .4 1187 10 061253 C-ABL PROT .4 1187 10 061255 C-ABL PROT .4 1187 10 061255 C-ABL PROT .4 1187 10 061255 C-ABL PROT .4 1187 10 061254 C-ABL PROT .4 284 2 013692 BCR/ABL FU .4 337 9 034234 SUGAR TRAN .4 365 7 037993 STROMAL CE .4 1130 2 013870 PROTO-ONCO .4 1149 2 013869 PROTO-ONCO .4 1149 2 013869 PROTO-ONCO .4 1149 2 013870 SIMILAR TO .3 895 12 091227 GLUTAMATE .3 895 12 091225 GLUTAMATE
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ABELSON MU ABELSON MU ABELSON MU ABELSON MU ABELSON MU ABELSON MU C-ABL (FRA C-ABL) (FRA ABELSON MU BCR/C-ABL HYPOTHETIC C-ABL PROT C-ABL PROT C-ABL PROT C-ABL PROT C-ABL PROT BCR/ABL FROT BCR/C-ABL BCR/C
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ALIGNMENTS

Qy RESULT ID O	ф	Qy Db	Qy Db	Qy Db	Mat Bes	SQ	F D D F	2 R R 2	88888	DI DI AC	RESULT ID Q
206 4214		122 HF 11 146 hz	62 IB 86 ie	2 AC 11 26 ac	Query Match Best Local Similarity Matches 193; Conser	CHAIN	SUBMITTED EMBL; X759 PROSITE; F NON_TER	SEQUENCE F SUZUKI Y.;	CETT		LT 1. Q60453
gaappkqetidiedp 2 PRELI	GAAPPKQEFLDIEDP	YQMGCEC 	FIYTAPS fiytaps	SCSPVHP	h Simila 193; C	Ħ	759 759		78 H	1996 (T 1996 (T 1998 (T	
	LDIEDP	KITRCPM kitrcpm	SAVCGVS	QQAFCNAI qqafcnai	- 1	3 196 196 AA; 21	SUBMITTED (NOV-1993) TO EMBL; X75924; G414877; PROSITE; PS00288; TIMP; 1. NON_TER 1	N.A.	INHIBITOR OF METARO ILUS LONGICAUDATUS () DIA; METAZOA; CHORDA: [A; RODENTIA.	(TREMBLREL. (TREMBLREL. (TREMBLREL.	PRELIMINARY;
220 MINARY;	196	IPCYISSE pcyisse	LDVGGKKE dvggkke	DVVIRAKA dvviraka		.96 21941 MW;	P; 1.		ETARO PR FUS (LON HORDATA;		
PRT;		DECLWMDS	YLIAGKAI yliagka	VSEKEVDS 	Score 1466; DB 10; Pred. No. 0.00e+00; 2; Mismatches 0	8	(NOV-1993) TO EMBL/GENBARK/DDBJ 24; G414877; S00288; TIMP; 1.		METARO PROTEINASE (FR DATUS (LONG-TAILED HAM CHORDATA; VERTEBRATA;	CREATED) LAST SEQUENCE UPDATE) LAST ANNOTATION UPDATE)	PRT;
220 AA.		WTEKSIN 	EGDGKMH1 egdgkmhi	sgnDIYGN 	No. 0.00e+ Mismatches	TENTIAL. 2DE3230A CRC32;			E (FRAGMENT). D HAMSTER) (C RATA; TETRAPO	JENCE UP	196 AA.
•		NGHQAKFF nghqakff	TLCDFIV	NPIKRIQY pikriqy	" F	32;	DATA BANAS		ENTOR OF METARO PROTEINASE (FRAGMENT) LONG-TAILED HAMSTER) (CHINESE METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAI ODENTIA	DATE)	
		HRYQMGCECKITRCPMIPCYISSPDECLWMDWVTEKSINGHQAKFFACIKRSDGSCAWYR 	IEFIYTAPSSAVCGVSLDVGGKKEYLIAGKAEGDGKMHITLCDFIVPWDTLSTTQKKSLN 	ACSCSPVHPQQAFCNADVVIRAKAVSEKEVDSGNDIYGNPIKRIQYEIKQIKMFKGPDKD 	Length 196; Indels 0			3	NESE HAMSTI ; MAMMALIA;		
					0; Gaps				HAMSTER).		
	•	181 205	121 145	61 85	0;			•			

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Best Local S
Matches 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q99727;
01-MAY-1997
01-MAY-1997
01-MAY-1997
                                                                                                                                                                                                                                                               GREENE J., WANG M., RAYMOND L.A., LIU Y.E., ROSEN C., SUBMITTED (JAN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; U76456; G1773293; -. SEQUENCE 224 AA; 25502 MW; EAF29A49 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAY-1997 (TREMBLREL. 03, CREATED)
01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
01-MAY-1997 (TREMBLREL. 03, LAST ANNOTATION UPDATE)
01-MAY-1997 (TREMBLELEL. 03, LAST ANNOTATION UPDATE)
TISSUE INHIBITOR OF METALLOPROTEINASE 4.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METALOA; CHORDATA; VERTEBRATA; TETRAPODA,
                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
TISSUE-HEART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q99727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AIMES R.T., LI L., WEAVER B., HAWKES S., HAHN E.A., (
SUBMITTED (SEP-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
EMBL; AF004664; G2352473; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GALLUS GALLUS (CHICKEN).
EUKARYOTA; METAZOA; CHOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JAN-1998 (TREMBLREL.
01-JAN-1998 (TREMBLREL.
01-JAN-1998 (TREMBLREL.
TISSUE INHIBITOR OF META
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         57
                                                  60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             / Match 79.9%;
Local Similarity 78.6%;
les 173; Conservative
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                                                                                MPGSPRPAP-SWVLLLRLLALLRPPGLGEACSCAPAHPQQHICHSALVIRAKISSEKVVP 59
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                         ASADP-ADTEKMLRYEIKQIKMFKGFEKVKDVQYIYTPFDSSLCGVKLEANSQKQYLLTG 118
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    109;
                                                                                                                                                                                                 Similarity
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PRIMATES.
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27
220
                                                                                                                                                                            51.4%;
llarity 48.2%;
Conservative
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220 T
24313 MW;
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                                                                                                                                                                            Score 844; DB 2; L
Pred. No. 4.37e-190;
53; Mismatches 56;
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1313; DB 12;
Pred. No. 0.00e+00;
22; Mismatches 22
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TISSUE INHIBITOR OF
; F477B394 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERTEBRATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                               TETRAPODA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22;
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                                                                                                                                                                                                                      Length 224
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Best Local
                                                                      SEQUENCE FROM N.A.

TISSUE-LIVER;

IREDALE J.P., BENYON R.C., ART
WINWOOD P.J., CLARK N., MURPHY
HEPATOLOGY 24:176-184(1996).

EMBL; L29512; G1550734; -.
                                       EMBL; L29
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUL-1997
01-JUL-1997
01-JAN-1998
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01-FEB-1997 (TREMBLREL.
01-FEB-1997 (TREMBLREL.
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002722
                                                                                                                                                                                                                  EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                       EUKARYOTA;
                                                                                                                                                                                                                                                          RATTUS NORVEGICUS
                                                                                                                                                                                                                                                                                               METALLOPROTEINASE INHIBITOR
                                                                                                                                                                                                                                                                                                                                                                               P70533;
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SUBMITTED (MAY-1997) TO 
EMBL; U95039; G2072247; 
PROSITE; PS00288; TIMP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EQUUS CABALLUS (HORSE).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PERISSODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TIMP-1.
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| qyelkqikmfkg-pe-kdi-e--fiytapssavcgvsldvggkke-yllagkaegdgkmh 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              h 28.8%;
Similarity 39.3%;
79; Conservative
                                         176
                                                                                                                                                                                                                                       METAZOA;
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                                         AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23046 MW;
                                       19659 MW;
                                                                                                                                                                                                                                     CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REL. 04, CREATED)
REL. 04, LAST SEQUENCE UPDATE)
REL. 05, LAST ANNOTATION UPDATE)
METALLOPROTEINASE-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                               02,02,
                                                                                                                     MURPHY
                                                                                                                   ARTHUR M.J.,
PHY G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 203
                                                                                                                                                                                                                                                                                                             LAST SEQUENCE UPDATE)
                                                                                                                                                                                                                                                                                                                                                         CREATED)
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Pred. No. 3.95e-91;
42; Mismatches 65
                                                                                                                                                                                                                                                                                                 (FRAGMENT)
                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                     VERTEBRATA;
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10;
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                                                                                                                                    W.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 207;
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                                                                                                                                    ALCOLADO
                                                                                                                                                                                                                                   MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15;
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Q16121
                                                                                                                                                             BONFIELD J., BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON CRAXTON M., DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P., HAWKINS T., HILLIER L., JIER M., JOHNSTON L. JONES M., KERSHAW J., KIRSTEN J., LAISTER N., LATREILLE P., JONES M., KERSHAW J., KIRSTEN J., LAISTER N., LATREILLE P., JONES M., KERSHAW J., KIRSTEN J., LAISTER N., LATREILLE P., JONES M., COCALLAGHAN M., CHOMMERAY A., MORTINGER B., O'CALLAGHAN M., CHOMMER M., CONTRACTOR D., COLLAGRAM M., CONTRACTOR D., 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1996 (TREMBLREL 01, CREATED)
01-NOV-1996 (TREMBLREL 01, LAST SEQUENCE UPDATE)
01-NOV-1996 (TREMBLREL 01, LAST ANNOTATION UPDATE)
SIMILAR TO METALLOPROTEINASE INHIBITOR 2 PRECURSORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1996 (TREMBLREL. 01-NOV-1996 (TREMBLREL. 01-JAN-1998 (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                     STRAIN-BRISTOL N2;
MEDLINE; 94150718.
WILSON R., AINSCOUGH R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAENORHABDITIS ELEGANS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q21265;
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DE CLERCK Y.A., DARVILLE M.I.,
GENE 139:185-191(1994).
EMBL; 568860; E119468;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TIMP-2
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01.NOV-1996 (TREMBLEEL. 01, LAST SEQUENCE UPDATE)
01.JAN-1998 (TREMBLREL. 05, LAST ANNOTATION UPDATE)
TIMP-2-METALLOPROTEINASE-2 TISSUE INHIBITOR (PROMOTER (FRAGMENT).
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WATSON A., WEINSTOCK L., NATURE 368:32-38(1994).
                                                                                                     PARSONS J., PERCY C., RIFKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN SMALDON N., SMITH A., SONNHAMMER E., STADEN R., SULSTON J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUTHERIA; PRIMATES.
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EUKARYOTA; METAZOA; C
                                                            THIERRY-MIEG J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              151
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         apssavcg-vsldvggkkeyliagkaegdgkmhitlcdfivpwdtlsttqkkslnhryqm 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HPQTAFCNSDLVIRAKFMGSPEI-IETTLYQRYEIKMTK-MLKGFDAV-GNATDIRFAYT 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gce-ckitrcpmipcyisspdeclwmdwvtekninghqakffacikrsdgscaw 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PAMESLCGYVHKSQNRREEFLIAGRLR-NGNLHITACSFLVPWASLSPAQRKGLTKTYSA 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hpqqafcnadvvirakavsekevdsgndiygn-pikriqyeikqikmfkgpekdiefiyt 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         h 18.6%;
Similarity 100.0%;
43; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 38.5%; 67; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PS00288; TIMP; 1.
50 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           50 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                               THOMAS K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5121 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCELOMATES;
                                 WILKINSON-SPROAT J.,
                                                                                                                                                                                                                                                                                                                                                            ANDERSON K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 306; 1
Pred: No. 2.
0; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred.
36; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EECKHOUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NEMATODA; SECERNENTEA; RHABDITIDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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                                                                                                                                                                                                                                                                                                            K., BAYNES C.,
, COPSEY T., CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.29e-84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 2;
.70e-48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Υ.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A
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                                 WOHLDMAN P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 50
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                                                                                                                                                                                                                                                                                                                                                            BERKS M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                       WATERSTON R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
ଜ.ଜ.
                                                                                                                                                                                                                                                       JOHNSTON L.,
                                                                                                                                                                                                                                                                                                                       COULSON A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
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                                                                                                                                            RESULT
                                                                                                                                                                                                                          Query Match
Best Local
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                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                       Q56365;
01-NOV-1996 (TREMBLREL. 0:
01-FEB-1997 (TREMBLREL. 0:
01-JAN-1998 (TREMBLREL. 0:
01-JAN-1998 (TREMBLREL. 0:
                                                                                                                                                                                                                                                                                                                                                          062779;
01-NOV-1996 (TREMBLREL. C
01-NOV-1996 (TREMBLREL. C
01-NOV-1996 (TREMBLREL. C
PREADIPOCYTE FACTOR 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [2]
SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
WU X, LE TT.;
 STRAIN-E79;
LEE J.K., K
                                                                                                                                 LT 9
Q56365
                                                                                                                                                                                                                                                                                                                                                                                                                        LT 8
Q62779
                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

STRAIN-WISTAR; TISSUB-ISLETS OF LANGERHANS;
SYENSSON C., MICHELSEN B., BILLESTRUP N., NIELS
SUBMITTED (MAY-1995) TO EMBL/GENBANK/DDBJ DATA
EMBL; U25680; G802014; -
                                                                     01-JAN-1998 (TREMBLREL. 05, LASTHERMOSTABLE ALKALINE PROTEASE.
                                                                                                                                                                                                                                                                                                                                        RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUBMITTED (APR-1996) TO EMBL/GENBANK/DDBJ EMBL; U53336; G1255824; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. STRAIN-BRISTOL N2;
                                                 THERMOACTINOMYCES SP. EUBACTERIA; FIRMICUTES;
                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBMITTED
                                                                                                                                                                                                                                                                                                                                EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WATERSTON R.;
                                        THERMOACTINOMYCES
                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                124 itlcdfivp 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120 TVLCGQVLP 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      67 kriqyeikqikmfkgp-ekd-i-efiytapssavcgvsldvggkkeyliagkaegdgkmh 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                       U53336; G1255824;
NCE 158 AA; 174
                                                                                                                                                                                                              6.1%;
Similarity 42.6%;
20; Conservat'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    h 12.7%;
Similarity 27.9%;
36; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (APR-1996)
KIM Y.O.,
                                                                                                                                                                                                                                                         383 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                   PRELIMINARY;
 KIM
                                                                                                                                                                                                                                                         41253 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17465 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                      999
                                                                               05,
02,
 H.K.,
                                                  ACTINOMYCETES;
                                                                             CREATED)
LAST SEQ
LAST ANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 208; DB 3; Le
Pred. No. 7.32e-25;
40; Mismatches 43;
                                                                                                                                                                                                                          Score 100; DB 10;
Pred. No. 1.24e-02;
                                                                                                                                                                                                                                                                                                                                                                      CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                         VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
 PARK Y.S.,
                                                                                                                                   PRT;
                                                                                                                                                                                                                                                         58BED3DD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FBD8E38D
                                                                                                                                                                                                                 Mismatches
                                                                                ANNOTATION
                                                                                          SEQUENCE UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                          383
                                                                                                                                   384
                                                  THERMOACT INOMYCETES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CRC32;
 Ю
                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                         TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DATA
                                                                                                                                                                                                                                                                                       NIELSEN J.H.;
  H
                                                                                UPDATE)
                                                                                                                                                                                                                                                                             BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
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                                                                                                                                                                                                                                    Length 383;
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FT RAP
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ID QS
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Best Local S
Matches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 6.0%;
Best Local Similarity 40.6%;
Matches 13; Conservative
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Q61720
                                                                                                                                                                                                          BOS TAURUS
EUKARYOTA; 1
                                                                                                                                                                                                                                                                                                Q95117;
01-FEB-1997 (TREMBLREL.
01-FEB-1997 (TREMBLREL.
01-JAN-1998 (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                       LT 11
Q95117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MUCLEIC ACIDS RES. 10:3069-3084(1982).
EMBL; V00755; G817965; .
EMBL; J00425; G194118; ..
SEQUENCE FROM N.A.

MEDLINE; 96421609.

HOANG B., MOOS M., VUKICEVIC S., LUYTEN
J. BIOL. CHEM. 271:26131-26137(1996).

EMBL; U24164; G1620539; -

SIGNAL 1 25
SIGNAL 1 25
CHAIN 26 325
FRZB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              061720;
01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-FEB-1997 (TREMBLREL. 02, LAST ANNOTATION UPDATE)
MESSENGER RNA FRAGMENT FOR MOUSE INTERFERON BETA (TYPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BIOSCI BIOTECHNOL BIOCHEM 60:840-846(1996).
EMBL; 031759; G1683629; -
PROSITE; PS00136; SUBTILASE_ASP; 1.
PROSITE; PS00137; SUBTILASE_HIS; 1.
PROSITE; PS00138; SUBTILASE_SER; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 82247191.
SKUP D., WINDASS J.D., SOR F.S.,
FUKUHARA H., DE MAEYER-GUIGNARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                THE C-TERMINAL PART (FRAGMENT).
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                         EUTHERIA;
                                                                                                                                                                                                                                                                                 FRZB PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          172 clwmdwvtekninghqakffacikrsdgscaw 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLWTDQVLVGS-EDYQSRHFACLPRNLGLCTW 32
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6.1%;
Similarity 27.1%;
23; Conservative
                                                                                                                                                                                         ARTIODACTYLA.
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                                                                                                                                                                                                     (BOVINE).
METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     384
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                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
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Pred. No. 1.
25; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 99; DB 10;
Pred. No. 1.82e-02
7; Mismatches 1
                                                                                                                                                                                                                                                                                                CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               429816C2 CRC32;
                                                                                                                                                                                                            VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 9; Le
L.24e-02;
ches 33;
                                                                                            F.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CRC32;
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                                                                                                                                                                                                          TETRAPODA;
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                                                                                                                                                                                                                                                                                                     UPDATE)
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E.;
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Best Local S
Matches 3
  Query Match
Best Local Similarity
Matches 20; Conser
                                       SEQUENCE FROM N.A.
MEDLINE; 96208959.
ISHITANI M., MAJUMDER A.L., E
JENSEN R.G., BOHNERT H.J.;
PLANT J. 9:537-548(1996).
EMBL; U32511; G975888; -.
SEQUENCE 512 AA; 56758 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1996
01-NOV-1996
                                                                                                                                                       Q40271;
01-NOV-1996 (TREMBLREL. 01, CREATH
01-NOV-1996 (TREMBLREL. 01, LAST &
01-JAN-1998 (TREMBLREL. 05, LAST &
MYO-INOSITOL-1-PHOSPHATE SYNTHASE.
                                                                                                                                                                                                                        LT 13
Q40271
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Q61692
                                                                                                                                    MESEMBRYANTHEMUM CRYSTALLINUM (COMMON EUKARYOTA; PLANTA; EMBRYOPHYTA; ANGIOS
                                                                                                                                                                                                                                                                                                                                                            WENGER R.H., AYANE M., BOSE R., KOEHLER G., EUR. J. IMMUNOL. 21:1039-1046(1991).
EMBL; X56486; G51442; -
                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-CBA X C57BL/6; TISSUE-SPLEEN;
MEDLINE; 91209380.
                                                                                                                                                                                                                                                                                                                                                                                                                                  MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA;
EUTHERIA; RODENTIA.
                                                                                                                            CARYOPHYLLALES; AIZOACEAE.
                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q61692;
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                                                                                                                                                                                                                                                                                                        Local Similarity hes 17; Conser
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Similarity 27.2%;
37; Conservative
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6 (TREMBLREL. 01,
6 (TREMBLREL. 01,
CODING FOR HEAT S
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5.8%;
larity 38.5%;
Conservative
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larity 50.0%;
Conservative
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                                          MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           , CREATED)
, LAST SEQUENCE UPDATE)
, LAST ANNOTATION UPDAT
STABLE ANTIGEN.
Score 95; DB 8; Pred. No. 8.35e-02
                                                                                                                                                                  LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
                                                                                                                                                                                                                                                                                                                   Score 96;
Pred. No:
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Pred. No. 1.82e-02;
34; Mismatches 46
                                                                                                                                                                                        CREATED)
                                                                                 BORNHOUSER
                                                                                                                                                                                                                      PRT;
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                                         8F97FE26 CRC32;
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                                                                                                                                     ANGIOSPERMAE;
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                                                                                                                                                                                                                                                                                                                   DB 10;
5.73e-02;
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SPERMAE; DICOTYLEDONEAE;
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                                                                                 MICHALOWSKI C.B.,
                                                                                                                                                                 UPDATE)
 16;
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                   Length
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                     512;
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Best Local Similarity 31.7%;
Matches 20; Conservative
                                                          Query Match 5.5%;
Best Local Similarity 35.7%;
Matches 10; Conservative
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041968
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Q91909
                                                                                                                                                                                                                              STRAIN-WUMS;
MEDLINE; 97366649.
VIRGIN H.W. IV, LATREILLE P.,
DAL CANTO A.J., SPECK S.H.;
J., VIROL. 71:5894-5904(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                        O41968;
01-JAN-1998
                                                                                                                         LATREILLE P., WAMSLEY P., WATERSTON R.H.;
SUBMITTED (APR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U97553; G2317997; -
SEQUENCE 226 AA; 25881 MW; D2AD43E8 CRC32;
                                                                                                                                                                                                                                                                                                                                            MURINE HERPESVIRUS 68.
VIRUSES; DSDNA VIRUSES,
                                                                                                                                                                                                                                                                                                                                                                            GAMMAHV.ORF67
                                                                                                                                                                                                                                                                                                                                                                                                         01-JAN-1998
01-JAN-1998
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01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-JAN-1998 (TREMBLREL. 05, LAST ANNOTATION UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              367 ELHLIRL-KGTEKGVYTEYYTTNSDDDASVSFNIQVKTRPEILIAERT-SEGTLQCVATGF 424 | : | : | | | | : : : | : | |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; AMPHIBIA; ANURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  275 EENIPFINGSPQNTFVPGL-IDLAIKKNSLIGGDDFKSGQTKMKSVLVDFLV 325
| :| || :| |: ||: ||: ||: ||: || || ||: ||
83 ekdieflytapssa-vcgvsldvggkkeyliagka--egdgkmhitlcdfiv 131
                                                                                                                                                                                                                                                                                                                                                                                         EGUMENT PROTEIN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MAKER C.V., SHARPE C.R., TOR.
MECH. DEV. 50:217-228(1995).
MBL: 248770; G763034; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             :-KIT-RELATED KINASE 1 (XKRK1) PRECU
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                                                                                                                                                                                                    EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                             QUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              72 elkqlkmfkgpekdieflytapssavcgvsldvggk-k-eyllagkaegdgkmhitlcdf 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EQUENCE FROM N.A.
76 ikmfkgpekdiefiytapssavcgvsld 103
                              92 LKCFMSPPRDIDFQYGNRVNMACDVNLE 119
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20
954 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19 POTENTIAL.
54 C-KIT-RELATED KINASE 1.
106859 MW; 3B301EB3 CRC32;
                                                                                                                                                                                                                                                                                                                                          NO RNA STAGE; HERPESVIRIDAE; GAMMAHERPESVIRINAE.
                                                                                                                                                                                                                                                                                                                                                                                                      05, CREATED)
05, LAST SEQUENCE UPDATE)
05, LAST ANNOTATION UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 95; DB 12; Le Pred. No. 8.35e-02; 17; Mismatches 22;
                                                                        Score 90; DB 11;
Pred. No. 5.25e-01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
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                                                                                                                                                                                                                                                              WAMSLEY P.,
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                                                             Mismatches
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                                                                                        DB 11; Length 226
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                                                             10; · Indels
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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm
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575.950 Million cell updates/sec

Title: >R07955

Description: (1-220) from a-geneseq.pep

Perfect Score: 1643
Sequence: 1 mgaaartlrlalgllllatl.....cawyrgaappkqefldiedp 220

Jular output not generated.

Scoring table: PAM 150 Gap 11

Searched: 69112 seqs, 25083644 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

swiss-prot35 1:swiss1

Database:

Statistics: Mean 44.629; Variance 66.231; scale 0.674

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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282 97	290 290 76	207 217 205	206 207	211 207	211 212	220 211 211	220 220 220	Length
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CD24_MOUSE	HYPB_ECOLI CD24_RAT	TIM1_RAT TIM1_RAT TIM1_MOUSE	TIML_HOMAN TIML_RABIT TIML_BOVIN	TIM3_RAT	TIM3_MOUSE	TIM2_BOVIN TIM3_HUMAN TIM3_BOVIN	TIM2_HUMAN TIM2_RAT TIM2_MOUSE	Ħ
STONAL TRANSPICER CDOA	METALLOPKOTEINASE INHI HYDROGENASE ISOENZYMES SIGNAL TRANSDUCER CD24 ALBUA-ADARTIN HONOLOG		METALLOPROTEINASE METALLOPROTEINASE	METALLOPROTEINASE METALLOPROTEINASE	METALLOPROTEINASE METALLOPROTEINASE	METALLOPROTEINASE METALLOPROTEINASE METALLOPROTEINASE	METALLOPROTEINASE METALLOPROTEINASE METALLOPROTEINASE	Description
PROTEIN PRE	CD24	IHNI	IHNI	IHNI	IHNI	IHNI IHNI IHNI	IHNI IHNI IHNI	
3.87e-02 1.19e-01	2.468-97 7.68e-06 8.32e-03	9.28e-104 6.98e-102 2.40e-101	2.28e-105 1.46e-104 2.70e-104	1.52e-148 2.28e-105	3.44e-150 3.44e-150	0.00e+00 1.17e-152 1.83e-150	0.00e+00 0.00e+00 0.00e+00	Pred. No.

ALIGNMENTS

Ŗ R ;	R R	27	R R	RP	RN	R K	2 X	Ŗ₽	RN	<u>R</u> 3	7 2	RN	뫈	RA	RA	Z :	77	₽:	R :	2	7 K	7	RN	R.	R.	RX :	R 2	2 6	88	80	GN	DE	B	Ž į	j (3 2	ä	RESULT	
921	[7] SECUTENCE OF 27-41.	TL. ACAD. SCI. U.S.A. 86:8207-8211(1989).	MEDLINE; 90045/55. GOIDBERG G.I. MARMER B.I., GRANT G.A., EISEN A.Z., WILHELM S., HE C.;		(6)	2/ETIDEK 3/EMPENDON W.G., AKOIGGER H.C., HIOIIA H.A.; I HIOI CHEM 264 17374 17378 1989)	T TOTTE			SUBMITTED (AUG-1990) TO EMBL/GENBANK/DDBJ DATA BANKS.	CETTAN U NOVI TO THATA	21	J. BIOL. CHEM. 271:25498-25505(1996).	P., DECLERCK Y.A.;		MEDLINE: 96411768.		SEQUENCE FROM N.A.		NATE ACAD SCI U.S.A. 87:2800-2804(1990).	DE CLERCK V A LANGLEY K.E			3-13938	ĽΩ		SEOTENCE FROM N.A.	TITE TRANSPORT	EUKARYOTA; METATOA; CHOKDATA; VEKTEBRATA; TETKAPODA; MAMMALIA;).		3-2) (CSC-21K).	EINASE INHI	(REL. 35,	(ACCES 15 LACT		TIM2_HUMAN STANDARD; PRT; 220 AA.	A 1	

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FEBS LETT. 296:16-20(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ILLIAMSON R.A., MARTORELL G., CAN
REEDMAN R.B., FEENEY J.;
IOCHEMISTRY 33:11745-11759(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            I- FUNCTION: COMPLEXES WITH MET
AND IRREVERSIBLY INACTIVATE
I- PYM: THE ACTIVITY OF TIMP-2
                                                                                                                                                                                                          mery Match
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TIM2_RAT
P30121;
01-APR-1993
                                                                                                                                                                                                                                                                                                                                                             SULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: HIGH WITH OTHER MEMBERS
                                                    181
                                                                    181
                                                                                      121
                                                                                                      121
                                                                                                                                                                                                  Local
                                                                                                                                       61
                                                                                                                      61
                                                                                                                                                      ISULFIDE BONDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    J05593; G339707;
S48568; G298202;
U44385; G1517893
                                                                                                                     KMHITLCDFIVPWDTLSTTQKKSLNHRYQMGCECKITRCPMIPCYISSPDECLWNDWVTE 180
                                                                                                                                                                                          h 100.0%;
Similarity 100.0%;
220; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5; G1517893; -.
1; G1517893; JOINED.
12; G1517893; JOINED.
13; G1517893; JOINED.
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                                                                                                                                                                                                                                Ŗ
                                                                                                                                                                                                                                                                                                                                                                                         INHIBITOR;
                    STANDARD;
                                                                                                                                                                                                                                                                          78
82
96
    25, CREATED)
                                                                                                                                                                                                                                 24399 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OBERHOFF R., REINKE H., TSCHESCHE H.;
                                                                                                                                                                                                                                                                                                                                      METALLOPROTEINASE INHIBITOR 2
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   METALLOPROTEINASES (SUCH AS COLLAGENASES)
                                                                                                                                                                                                      Score 1643; DB 1;
pred. No. 0.00e+00;
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                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IS DEPENDENT ON THE
                                                                                                                                                                                                                                  834D259A CRC32;
                                                                                                                                                                                                                                                                                                                        SIMILARITY.
                                                                                                                                                                                                 Mismatches
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                                                                                                                                                                                                                                                    (IN REF.
                                                                                                                                                                                                                                                                      (IN REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OF THE TIMP FAMILY.
                        220
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                                                                                                                                                                                                   0
                                                                                                                                                                                                                   Length 220;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOCHERTY A.J.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRESENCE
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01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 2 PRECURSOR (TIMP-2) (TISSUE INHIBITOR OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHOR
EUTHERIA; RODENTIA.
                                                                                                                                                                                                     Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-SPRAGUE-DAWLEY; TISSUE-BONE; MEDLINE: 94263207.
COOK T.F., BURKE J.S., BERGMAN K.D. PARTRIDGE N.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIMP2 OR TIMP-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 METALLOPROTEINASES-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 94326839.

SANTORO M., BATTAGLIA C., ZHANG L.,
SALVATORE D., FUSCO A.;
EXP. CELL RES. 213:398-403(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.

TISSUE-TESTIS;
TISSUE-TESTIS;
GRINA J., CALCAGNO K., CHENG
GRINA J., CALCAGNO K., CHENG
J. ANDROL. 17:263-275(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GIBBONS K.L., O'GRADY
SUBMITTED (JUN-1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-MAMMARY;
GIBBONS K.L., O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RCH. BIOCHEM. BIOPHYS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 92117648.

MEDLINE; 92117648.

ROSWIT W.T., MCCOURT D.W., PARTRIDGE N.C., JEFFREY J.J.;

ROSWIT W.T., MCCOURT D.W., PARTRIDGE N.C., JEFFREY J.J.;

ROSWIT W.T., MCCOURT D.W., PARTRIDGE N.C., JEFFREY J.J.;

ROCHEM. BIOCHEM. BIOCHYS. 292:402-410(1992).

-I- FUNCTION: COMPLEXES WITH METALLOPROTEINASES (SUCH AS AND IRREVERSIBLY INACTIVATE THEM.

-I- PTM: THE ACTIVITY OF TIMP-2 IS DEPENDENT ON THE PRES-

-I- PTM: THE ACTIVITY OF TIMP-2 IS DEPENDENT ON THE PRES-
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MEDLINE; 92117648.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SIMILARITY: HIGH WITH OTHER MEMBERS OF THE TIMP FAMILY.
EMBL; U14526; G540205; ".
EMBL; U14526; G54141730; ".
EMBL; S72594; G619233; ".
EMBL; S72594; G619233; ".
EMBL; S82718; G1881814; ".
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CONFLICT
CONFLICT
SEQUENCE
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       61
                                               61
                                                                                       216;
                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                       99.2%;
llarity 98.2%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88; TIMP;
                                                                                                                                                                                                                                                                                   AA,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
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EMBL/GENBANK/DDBJ DATA
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                                                                                                                                                                                                                                                                                   METALLOPROTEINASE INHIBITOR 2.
BY SIMILARITY.
BY SI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C.Y.;
                                                                                                                                                                                           Score 1630; DB 1;
pred. No. 0.00e+00;
3; Mismatches 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IS DEPENDENT ON THE PRESENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QUINN C.O.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARLOMAGNO F., MARTELLI M.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JEFFREY
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                                                                                                                                                                                                                                                    Length 220;
                                                                                                                                                                                                            Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                        TIM2_MOUSE STANDARD,

p25785;

p25785;

p1-MAY-1992 (REL. 22, CREATED)

01-MAY-1993 (REL. 25, LAST SEQUENCE UPDATE)

01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)

01-NOV-1995 (REL. 32, LAST ANNOTATION (TIMP-2) (TISSUE INHIBITOR METALLOPROTEINASE INHIBITOR 2 PRECURSOR (TIMP-2)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MUS MUSCULUS (MOUSE).
EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   METALLOPROTEINASES-2).
                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENE 114:291-292(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 92290292.
SHIMIZU S., MALIK K., SEJIMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-BALB/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENE 117:209-217(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EDWARDS D.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE: 92347695.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KISHI J.I., OGAWA K., YAMAMOTO S., MATRIX 11:10-16(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY SEQUENCE OF 27-62.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFIDE BONDS.
-!- SIMILARITY: HIGH WITH OTHER MEMBERS EMBL; X62622; G54802; -- EMBL; M82858; G202052; -- EMBL; M93954; G202054; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 91226375.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -1- FUNCTION: COMPLEXES WITH METALLOPROTEINASES
AND IRREVERSIBLY INACTIVATE THEM.
-1- PTM: THE ACTIVITY OF TIMP-2 IS DEPENDENT ON
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                                                                                                                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                                                                                                                       ETALLOPROTEASE
                                                                                                                                                                                                                    CONFLICT
                                                                                                                                                                                                      CONFLICT
   61
                           MGI:98753;
                                                                                                                                                                                                                                                                                                                                                                                                                         JH0683;
                                                                                                                                                                                                                                                                                                                                                                                                                                       S15987; S15987.
IYGNPIKRIQYEIKQIKMFKGPDKDIEFIYTAPSSAVCGVSLDVGGKKEYLIAGKAEGDG
                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                     12
21
195
220
                                                                                                     98.6%;
ilarity 97.3%;
Conservative
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154
172
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                                                                                                                                                                                                                                                                                                                                                                              INHIBITOR;
                                                                                                                                                                                                                                                                                                                                                                                                 TIMP; 1.
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                                                                                                                                                                                                                                                BY SIMILARITY BY SIMILARITY
                                                                                                                                                                                                                                                                                               BY SIMILARITY BY SIMILARITY BY SIMILARITY
                                                                                                             score 1620; DB 1;
pred. No. 0.00e+00;
5; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                    METALLOPROTEINASE INHIBITOR 2.
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-> L (IN
IN H (IN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ROCHELEAU H.,
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N REF. 2).
                                                                                                                                                                                       CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             THE TIMP FAMILY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                THE PRESENCE
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                                                                                                                                                       Length 220;
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                                                                                                                        Indels
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01-MAY-1991 (REL. 18, LAST SEQUENCE UPDATE)
01-FEB-1995 (REL. 31, LAST ANNOTATION UPDATE)
01-FEB-1995 (REL. 31, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 2 PRECURSOR (TIMP-2)
METALLOPROTEINASES-2) (COLLAGENASE INHIBITOR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TIM2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE; 90207285.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EUKARYOTA;
                                                                                                                                                             Matches
                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BOONE T.C., JOHNSOPROC. NATL. ACAD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 27-71.
MEDLINE; 90008914.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE: 86140235.
MURRAY J.B., ALLISON K., SUDHALTER J.,
MURRAY J.B., 261:4154-4159(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-CARTILAGE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 27-71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- SIMILARITY: HIGH WITH OTHER MEMBERS OF THE MANAGERY M32303; G163342; -- PIR; A25322; A25322. PIR; A35996; A35996. PIR; A34468; A3468; A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -
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CONFLICT
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CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLERCK Y.A., YEAN T.D., RATZKIN B.J., LU H.S.
BIOL CHEM. 264:17445-17453(1289).
FUNCTION: COMPLEXES WITH METALLOPROTEINASES
FUNCTION: COMPLEXES WITH METALLOPROTEINASES
AND IRREVERSIBLY INACTIVATE THEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PTM: THE ACTIVITY OF
61 IYGNPIKRIQYEIKQIKMFKGPDQDIEFIYTAPAAAVCGVSLDIGGKKEYLIAGKAEGNG 120
                                                  ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (BOVINE).
METAZOA; CHORDATA;
                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOHNSON M.J., DE CLERCK Y.A., LANGLEY K.E.;
ACAD. SCI. U.S.A. 87:2800-2804(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                      Conservative
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220
98
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193
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                                                                                                                                                                                                                                                                                                                     METALLOPROTEINASE I
BY SIMILARITY.
B
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pred. No. 0.00e+00;
12; Mismatches 6
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0543B3EB CRC32:
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                                                                                                                                                                                                                                                                                                          CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     220
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIMP FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (SUCH AS COLLAGENASES)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INHIBITOR
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SULT
01-JUN-1994 (REL. 29, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 3 PRECURSOR (TIMP-3) (TISSUE INHIBITOR METALLOPROTEINASES-3) (MIG-5 PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE: 94215920.
SILBIGER S.M., JACOBSEN V.L.,
GENE 141:293-297(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIK3
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                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
TISSUE-BREAST CARCINOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                         URIA J.A., FERRANDO A.A., VELASCO G., FREIJE J.M., LOPEZ-OTIN C.;
CANCER RES. 54:2091-2094(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-KIDNEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                  WILDE C.G., HAWKINS P.R., COLEMAN R.T., DELEGEANE A.M., OKAMOTO P.M., ITO L.Y., DNA CELL BIOL. 13:711-718(1994).
                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE; 94308155.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EQUENCE FROM N.A.
                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE; 96404191.
                                                                                                                                                                                                                                                                                                                  EQUENCE FROM N.A. (EDLINE; 95290091.
                                                     MEDLINE: 94245184 M.-G., APTE S.S., MATTEI M.-G., GENOMICS 19:86-90(1994).
                                                                                                                                                                         SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                              TOEHR H., ROOMP K., FELBOR U., WEBER B.H.F.; ENOME RES. 5:483-487(1995).
                                                                                                                    SUBMITTED (MAY-1996)
                                                                                                                                         EQUENCE OF 42-211 FROM N.A. ISSUE-PLACENTA;
WEBER B.H.F., VOGT G., PRUETT R.C., NAT. GENET. 8:352-356(1994).
                                                                                                                                                                                                          EQUENCE FROM N.A.
                               VARIANTS SED CYS-191 AND CYS-204.
                                                                                              EQUENCE OF 14-211 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                    CK M., BUERGER C., BRUESSELBACH S.,
BIOL. CHEM. 269:18953-18960(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EDLINE;
                                                                                                                                                                                               SSUE-RETINAL PIGMENT EPITHELIUM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HUMAN
                                                                                     [SSUE=PLACENTA;
                    95201800.
                                                                                                                         HENRIET P.M., SILBIGER S.M., I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                    OLSEN B.R.;
                                                                                                                                     SILBIGER S.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CUPPLES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R.L.,
                  STOEHR H.,
                                                                                                                                                                                                                                                                                                                                                                       LUCIBELLO F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                       LEVINE W.B.,
SCOTT R.W.,
                                                                                                                           DECLERCK Y.A.;
J DATA BANKS.
                     FELBOR U.;
                                                                                                                                                                                                                                                                                                                                                                           MUELLER R.;
                                                                                                                                                                                                                                                                                                          SEILHAMER J.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.80
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VARIANT SFD CYS-179.
WEDLINE; 96177683.
FELBOR U., STOEHR H., AMANN T., SCHOENHERR U., WEBER B.H.F.;
HUM. MOL. GENET. 4:2415-2416(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VARIANT SFD CYS-191.
MEDLINE; 96341630.
                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- FUNCTION: COMPLEXES WITH METALLOPROTEINASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WEBER B.H.F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FELBOR U.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <del>-</del>
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CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL
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AD IRREVERSIBLY INACTIVATE THEM. MAY FORM PART OF A TISSUE-
SPECIFIC ACUTE RESPONSE TO REMODELING STIMULI.
SPECIFIC ACUTE RESPONSE TO REMODELING STIMULI.
SUBCELLULAR LOCATION: EXTRACELLULAR MATRIX.
SUBCELLULAR LOCATION: EXTRACELLULAR MATRIX.
SUBCELLULAR LOCATION: MATRIX.
SUBCELLULAR LOCATION: MACULAR DISORDER WITH DYSTROPHY (SPD), A RARE AUTOSOMAL DOMINANT MACULARIZATION AND ATROPHY OF CENTRAL VISION FROM SUBRETIMAL MEOVASCULARIZATION AND ATROPHY OF CHE TISSUES. GENERALLY, MACULAR DISCIPORM DEGENERATION OF THE TISSUES. GENERALLY, MACULAR DISCIPORM DEGENERATION OF THE TIMP FAMILY.
SIMILARITY: HIGH WITH OTHER MEMBERS OF THE TIMP FAMILY.
SIMILARITY: HIGH WITH OTHER MEMBERS OF THE TIMP FAMILY.
                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                           CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /ARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /ARIANT
                                                                                                                                                                                                                          Local Similarity 43.6%; pes 95; Conservation
114 YTGLCNEVERWDQLTLSQRKGLNYRYHLGCNCKIKSCYYLPCEVTSKNECLWTDMLSNEG 173
                                                65
                                                                       60 -L--V-YTIKQMKMYRGETKMPHVQYIHTEASESLCGLKLEVN-KYQYLLTGRVY-DGKM 113
                                                                                                                                                                                         2 TPWLGLIVILGSWSLGDWGABACTCSPSHPQDAFCNSDIVIRAKVVGKKLVKEGP--FGT 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     136900;
                                                                                                                                      pikriqyeikqikmfkg-pek-diefiytapssavcgvsldvggkkeyliagkaegdgkm 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STOEHR H., AMANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 G407035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8; TIMP; 1. INHIBITOR;
                                                                                                                                                                                                                                                                                                                                                  19
22:
23
24145
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                                                                                                                                                                                                                                                                                                                                                                                                                                           METALLOPROTEINASE INHIBITOR 3.
BY SIMILARITY.
BY SI
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                                                                                                                                                                                                                                                                        score 695; DB 1; I
pred. No. 1.17e-152;
                                                                                                                                                                                                                                                      56; Mismatches
                                                                                                                                                                                                                                                                                                                                                                         DW -> T (IN REF. 3).
AE -> R (IN REF. 8).
EA -> PR (IN REF. 3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCHOENHERR U., APFELSTEDT-SYLLA E.,
                                                                                                                                                                                                                                                                                                                                                       5FA15AAA CRC32;
                                                                                                                                                                                                                                                                                                            Length 211;
                                                                                                                                                                                                                                                                   Indels 12;
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Best Local S
Matches
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P79121;
                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 3 PRECURSOR (TIMP-3) (TISSUE INHIBITOR
   AC POT CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             123 hitlcdfivpwdtlsttqkkslnhryqmgceckitrcpmipcyisspdeclwmdwvtekn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TIMP3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 97138091.

SU S., DEHNADE F., ZAFARULLAH M.;

SU S., DEHNADE F., ZAFARULLAH M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   METALLOPROTEINASES-3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -1- SUBCELLULAR LOCATION: EXTRACELLULAR MATRIX.
-1- SIMILARITY: HIGH WITH OTHER MEMBERS OF THE TIMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       METALLOPROTEASE
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                      P39876;
01-FEB-1995
01-FEB-1995
01-OCT-1996
                                                                                                                                                                                                                                METALLOPROTEINASE
                                                                                            TIM3_MOUSE
                                                                                                                                                                              174 YPGYQSKHYACIRQKGGYCSWYRGWAPPDKSIINATDP
                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                   183
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 U77588; G1684818;
                                                                                                                                                                                                                                                                                                                                                                                                                  TPWLGLVVLLGSWSLGDWGAEACTCSPSHPQDAFCNSDIVIRAKVVGKKLLKEGP--FGT 59
                                                                                                                                                                                                                                                                                                                                                                               tlriaigllila-tll-rpadacscspvhpqqafcnadvvirakavsekevdsgndiygn 64
                                                                                                                                                                                                                                                                                                          pikriqyeikqikmfkg-pek-diefiytapssavcgvsidvggkkeyliagkaegdgkm 122
                                                                                                                                                                                                                                                                                                                                         -M--V-YTIKOMKMYRGETKMPHVQYIHTEASESLCGLKLEVN-KYQYLLTGRVY-DGKM 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                       41.8%;
1 Similarity 43.1%;
94; Conservation
                                                                                                                                                             145
150
163
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                             (REL.
(REL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INHIBITOR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TIMP;
                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          211
91
118
143
143
192
155
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                INHIBITOR
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CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
TRITOR 3 PRECURSOR (TIMP-3) (TISSUE INHIBITOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ě
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL; DISEASE MUTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         METALLOPROTEINASE I
METALLOPROTEINASE I
BY SIMILARITY.
CORPORED CROSS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 687; DB 1; Le
pred. No. 1.83e-150;
pred. No. 1.85e-150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred.
56; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2AE2CB02 CRC32;
                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 211
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 211;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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METALLOPROTEINASES-3).
TIMP3 OR TIMP-3 OR SUN.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METALOA; CHORI
                                                                           SEQUENCE FROM N.A.
MEDLINE: 94179361.
LECO K.J., KHOKHA R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUN Y., HEGAMYER G., COLBURN N. CANCER RES. 54:1139-1144(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE: 94163596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-BALB/C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APTE S.S., HAYASHI K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 95036582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEV. DYN. 200:177-197(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OLSEN B.R.
                                Query Match
Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUN Y., HEGAMYER G.,
                                                                                                                                                                                                                                                                                                                                                                                             APTE S.S., OLSEN B.R., MURPHY G.;
J. BIOL. CHEM. 270:14313-14318(1995).

-I. FUNCTION: COMPLEXES WITH METALLOPROTEINASES (SUCH FUNCTION: COMPLEXES WITH METALLOPROTEINASES (SUCH FUNCTION: FUNCTION: GRENODELING STIMULI. SPECIFIC ACUTE RESPONSE TO REMODELING STIMULI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-129/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                      -I- SUBCELLULAR LOCATION: EXTRACELLULAR MATRIX.
-I- TISSUE SPECIFICITY: HIGHEST LEVELS ARE FOUND IN KIDNEY, LEVELS DESCRIPTION OF THE FOLLOWED BY OVARY AND UTBRUS. LOW LEVELS ARE FOUND INDUCTION: HIGHLY INDUCED BY PHORBOL ESTER (PMA), EGF AND INDUCTION: HIGHLY INDUCED BY PHORBOL ESTER DESCRIPTION OF TRANSFORMING GROWTH FACTOR BETA 1. ALSO INDUCED BY DEXAMET TRANSFORMING GROWTH FACTOR BETA 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COLBURN N.H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BIOL. CHEM.
                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                         EMBL;
                                                                                                                                                                                                                                                                                                                            -1- SIMILARITY: HIGH WITH OTHER MEMBERS
                                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                    EMBL;
                                                                                                                                                                                                                                                 EMBL;
                                                                                                                                                                                                                               EMBL;
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                                                                                        DISULFID DISULFID DISULFID DISULFID DISULFID DISULFID DISULFID DISULFID DISULFID DISULFID
                                                                                                                                                                                           PROSITE;
                                                                                                                                                                                                      MGD;
                                                                                                                                                                                                                             PIR;
                                                                                                                                                                                                                                       EMBL:
                                                                                                                                                                                METALLOPROTEASE
                                                                                                                                                           CHAIN
                                                                             SEQUENCE
2 TPWLGLVVLLSCWSLGHWGAEACTCSPSHPQDAFCNSDIVIRAKVVGKKLVKEGP--FGT 59
                                                                                                                                                                                                      MGI:98754;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FROM N.A.
95370262.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KHOKHA R., PAVLOFF N., HAWKES HEM. 269:9352-9360(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /SV;
                                   Similarity
94; Conserv
                                                                                                                                                                                              PS00288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-SKIN, AND LUNG
                                                                                 24
24
26
36
145
150
150
                                                                                                                                                                                                                      S43052
                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHORDATA;
                                                                                                                                                                                   INHIBITOR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COLBURN N.H.;
                                                                                                                                                                                                  TIMP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KIM H., SITHANANDAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SELDIN M.F.,
                                                    41.8%;
43.1%;
                                                                                    24182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERTEBRATA; TETRAPODA; MAMMALIA;
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                                                                                               METALLOPROTEINASE INHIBITOR 3
BY SIMILARITY
                                                                                                                                                                                         SIGNAL.
                                            Score
Pred.
56; N
                                                                                                                                                                               POTENTIAL
                                                                                         CCB6E436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MATTEI M.-G., HAYASHI
                                                 e 686; DB 1; Le
. No. 3.44e-150;
Mismatches 56;
                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7.
                                                                                          CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LI H.,
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                                                                    Length 211;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WATTS
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                                                   Indels
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                                                                                                                                                                                                                                                                                                                                                                                              LUNG
                                                      12;
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                                                                                                                           Query Match
Best Local S
Matches 9
                                                                                                                                                                                   DISULFID DISULFID
                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P26652;
01-AUG-1992 (REL. 23, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 24, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 3 PRECURSOR (TIMP-3) (TISSUE INHIB
METALLOPROTEINASE INHIBITOR 3 PRECURSOR (TIMP-3) (TISSUE INHIB
                                                                                                                                                                                                                                                                                                                                                       STASKUS P.W., MASIARZ F.R., PALLANCK L.J., HAWKES S.P.,
J. BIOL. CHEM. 266:449-454(1991).

-1- FUNCTION: COMPLEXES WITH METALLOPROTEINASES (SUCH AS
AND IRREVERSIBLY INACTIVATE THEM. MAY FORM PART OF A
SPECIFIC ACUTE RESPONSE TO REMODELING STIMULI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-EMBRYONIC
MEDLINE; 92381050
PAVLOFF N., STASK
                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                       CHAIN
                                                                                                                                                                                                                                                                               METALLOPROTEASE
                                                                                                                                                                                                                                                                                        PROSITE;
                                                                                                                                                                                                                                                                                                     PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-FIBROBLAST;
MEDLINE; 91093162.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GALLIFORMES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GALLUS GALLUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TIM3_CHICK
                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 25-53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TIMP3 OR IMP-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        134
                                   83
                                                          76
                                                                               24
                                                                                      22 AEACTCVPIHPQDAFCNSDIVIRAKVVGKKLMKDGP--FGT-M-R--YTVKQMKMYRGFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                BIOL. CHEM.
                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: EXTRACELLULAR SIMILARITY: HIGH WITH OTHER MEMBERS
KGLNHRYHLGCGCKIRPCYYLPCFATSKNECIWTDMLSNFGHSGHQAKHYACIQRVEGYC
                                ek-dieflytapssavcgvsldvggkkeyllagkaegdgkmhitlcdfivpwdtlsttgk 141
                                                                             adacscspvhpqqafcnadvvirakavsekevdsgndiygnpikriqyeikqikmfkg-p
                                                                                                                                                                                                                                                                                                   A43429;
                                                                                                                                                                                                                                                                                                              A39043; A39043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YTGLCNFVERWDHLTLSQRKGLNYRYHLGCNCKIKSCYYLPCFVTSKNECLWTDMLSNFG
                                                      IMPHVQYIYTEASESLCGVKLEVN-KYQYLITGRVY-EGKVYTGLCNWYEKWDRLTLSQR 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   pikriqyeikqikmfkg-pek-diefiytapssavcgvsldvggkkeyliagkaegdgkm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -L--V-YTIKQMKMYRGFSKMPHVQYIHTEASESLCGLKLEVN-KYQYLLTGRVY-EGKM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tlrlalglllla-tl-lrpadacscspvhpqqafcnadvvirakavsekevdsgndiygn
                                                                                                                                                                                                                                                                                                                         M94531; G211902;
                                                                                                                           Similarity 45.2%;
90; Conservative
                                                                                                                                                                                                                                                                                        129; A43429
PS00288; T
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25
25
25
27
27
37
146
151
164
212
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (CHICKEN).
                                                                                                                                                                                 E INHIBITOR;
1 24
5 212
6 92
7 119
7 114
6 193
6 193
1 156
4 185
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                                                                                                                                                                                                                                                                                        TIMP;
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45.2%;
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                                                                                                                                      Score 686; DB 1; I
Pred. No. 3.44e-150;
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                                                                                                                                                                      C0489C6F CRC32;
                                                                                                                           Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HAWKES S.P.;
                                                                                                                           50;
                                                                                                                                               Length 212;
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TISSUE-
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PAPIO CYNCEPHALUS (YELLOW BABOON)
EUKARYOTA; METAZOA; CHORDATA; VERT
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01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
01-FEB-1996 (REL. 33, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 3 PRECURSOR (TIMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
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                                                                                                                                                         METALLOPROTEINASE
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-!- SIMILARITY: HIGH WITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WU I., MOSES M.A.;
SUBMITTED (MAY-1995)
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SIMILARITY: HIGH WITH OTHER MEMBERS OF THE TIMP
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93; Conser
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                                                                                                                                                                         33, CREATED)
33, LAST SEQUENCE UPDATE)
33, LAST ANNOTATION UPDATE)
                                                                                                                                                         INHIBITOR 1
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Pred. No. 1.52e-148;
56; Mismatches 57;
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                                     VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                         PRECURSOR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                            TIMI_HUMAN STANDARD,
P01033; Q14252;
P01033; Q14252;
P01033; Q14252;
21-JUL-1986 (REL. 01, CREATED)
21-JUL-1986 (REL. 02, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 03, LAST ANNOTATION UPDATE)
01-NOV-1997 (REL. 03, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 1 PRECURSOR (TIMP-1) (ERYTHROID METALLOPROTEINASES)
METALLOPROTEINASE INHIBITOR) (COLLAGENASE INHIBITOR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
SEQUENCE
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SEQUENCE FROM |
TISSUE-AORTA;
                                                                                                                                    TIMP1 OR TIMP.
HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA; (
GASSON J.C., GOLDE D.W., KAUFMAN R.J., WONG G.G., ORR E.C., CLARK S.C.;
                                                             SEQUENCE FROM N.A.
MEDLINE; 86040463.
DOCHERTY A.J.P., LYONS A.,
HARRIS T.J.R., MURPHY G.,
NATURE 318:66-69(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 96011646.
FOROUGH R., NIKKARI S.T.,
GENE 163:267-271(1995).
                              SEQUENCE FROM N.A. MEDLINE; 85240567.
                                                                                                                           EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GLYCOPROTEIN; METALLOPROTEASE INHIBITOR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -!- SIMILARITY:
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PTM: THE ACTIVITY OF TIMP-1 IS DEPENDENT ON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFIDE BONDS
                                                                                                                                                                                                                                                                                                                                                                         iqyeikqikmfkgpekdiefiytapssavcgvsldvggkke-yliagkaegdgkmhitlc 127
                                                                                                                                                                                                                                                                                                                                                                                                              LASGILLLLMLIAPSRACTCVPPHPQTAFCNSDLVIRAKFVGTPEVNQTT-LYQRYEIKM 65
                                                                                                                                                                                                                                                                                       qakffacikrsdgscaw
                                                                                                                                                                                                                                                                                                            QSRHLACLPREPGLCTW 199
                                                                                                                                                                                                                                                                                                                                dfivpwdtlsttqkkslnhryqmgce-ckitrcpmipcyisspdeclwmdwvtekningh 186
                                                                                                                                                                                                                                                                                                                                                     SFVAPWNSLSLAQRRGFTKTYTVGCEECTVFPCLSIPCKLQSGTHCLWTDQLLQGSEKGF
                                                                                                                                                                                                                                                                                                                                                                                            TK-MYKGFQAL-GDAADIRFVYTPAMESVCGYFHRSHNRSEEFLIAGKLQ-DGLLHITTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     L37295; G561546;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
81; Conser
                                                                                                                            PRIMATES.
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larity 41.1%;
Conservative
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                                                                                                                                      CHORDATA;
                                                                                                                                                                                                                                                                                       203
           KAUFMAN
TEMPLE P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ¥.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HASENSTAB D.,
                                                                       REYNOLDS J.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER MEMBERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BY SIMILARITY.
METALLOPROTEINASE INHIBITOR 1.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 521; DB 1; L
Pred. No. 2.28e-105;
39; Mismatches 70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL
                                                                                                                                      VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14EFBDAE CRC32;
           P.A.,
                 S.E.,
                   WESTBROOK C.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LEA H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ERYTHROCYTE MATURATION;
                                                                                                                                      TETRAPODA; MAMMALIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THE
                                                                                  E.X.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 207;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TIMP FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    THE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLOWES A.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRESENCE OF
                                                                                  STEPHENS
           HEWICK R.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COLLAGENASES)
                                                                                                                                                                                                                                                                                                                                                                                                                                                           7;
                                                                              P.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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REAL DOCUMENTS OF THE PROPERTY OF THE PROPERTY
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O'SHEA M., WILLENBRUCA....

FREEDMAN R.B., REYNOLDS J.J., DOCHERTY A.....

FREEDMAN R.B., REYNOLDS J.J., DOCHERTY A.....

FIGURE STATEMENT STATEMENT
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TISSUE-SYNOVIAL FLU
MEDLINE; 92111776.
OSTHUES A., KNAUEPE
                                                                                                                                                                                                               EMBL;
                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                  EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
MEDLLNE; 94123576.
OPBERCEK, KENNEY M.C., BROWN D
CURR. EYE RES. 12:877-883(1993).
                                                                                                                                                                                                                                                                                                                                                                        EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFIDE BONDS.
-I- SIMILARITY: HIGH WITH EMBL; X03124; G37183; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WILLIAMSON R.A., MARTSON F.A.C MORRIS H.R., CARNE A.F., SMITH BIOCHEM. J. 268:267-274(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MATSUDA T., KOHNO K., KUWANO SUBMITTED (JUL-1992) TO EMBL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RAPP G., FRE SCHEIT K.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WELGUS H.G., STRICKLIN G.P.;
PROC. NATL. ACAD. SCI. U.S.A. 83:2407-2411(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARMICHAEL D.F., SOMMER A., WELGUS H.G., STRICKLIN G.P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NATURE 315:768-771(1985).
[3]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUBMITTED (SEP-1995) TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 42-207 FROM N.A. MATSUDA T., KOHNO K., KUWANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREECK R.E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -! - PTM: THE ACTIVITY OF TIMP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HARDCASTLE A.J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 1-40 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-OVARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BIOTECHNOLOGY 5:595-598(1987)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SULFIDE BONDS, AND PARTIAL SEQUENCE
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                                   PS00288; TIMP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                296:16-20(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KNAUEPER V.,
                                                                                                                                                                                                                                                                                                                                                                        G182483; -.
G31189; -.
METALLOPROTEASE INHIBITOR; ERYTHROCYTE MATURATION;
                                                                                                                                                                                                                      G490094;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9:479-485(1990).
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                                                                                                                                                                                                                   EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIBES V.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   F.A.O., ANG.
SMITH B.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OBERHOFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BROWN D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEMBERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IS DEPENDENT ON
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ₽.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HARRIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REINKE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S,
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S T.J.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      THE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 THE PRESENCE OF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P., PANICO
FREEDMAN R.
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01-NOV-1995
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P20614;
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SIGNAL
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J. BIOL. CHEM. 264:7092-7095(1989).
-!- FUNCTION: COMPLEXES WITH METALLO!
                                                                                                                                                             SIGNAL.
                                                                                                                                                                                             PROSITE; PS00288;
                                                                                                                                                                                                            EMBL; J04712
PIR; A33350;
                                                                                                                                                                                                                                                                             -
                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE; 89214135.
                                                                                                                                                                                                                                                                                                                                                                                                                       EUKARYOTA; METAZOA; C
EUTHERIA; LAGOMORPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                      ORYCTOLAGUS CUNICULUS (RABBIT EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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SIMILARITY: HIGH WITH

L; J04712; G165743; -...

A33350; A33350.
                                                                                                                                                                                                                                                                          AND IRREVERSIBLY INACTIVATE PTM: THE ACTIVITY OF TIMP-1
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81; Conservative
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17, LAST EQUENCE UPDATE)
32, LAST ANNOTATION UPDATE)
INHIBITOR 1 PRECURSOR (TIMP-1).
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METALLOPROTEINASE I
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Pred. No. 2.28e-105;
39; Mismatches 70;
                                                                                                                                                                                                                                                                                                     METALLOPROTEINASES
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                                                                                                                                                                              INHIBITOR;
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-> P (IN REF. 7).
8B7E3B4E CRC32;
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IS DEPENDENT ON
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                                                                                                                                                                            ERYTHROCYTE MATURATION;
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                                                                                                                                                                                                                                                                                                                                                         NOTTER R.H.,
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EUKARYOTA;
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                                                                                                                                                                                                                                                           EMBL; M60073; G163761; -.
EMBL; S70841; G546974; -.
PIR; A35685; A35685.
PIR; B34468; B34468
                                                                                                                                                                                                                                                                                                                                                                          -i- FUNCTION: COMPLEXES WITH METALLOPROTEINASES AND IRREVERSIBLY INACTIVATE THEM.
-i- PTM: THE ACTIVITY OF TIMP-1 IS DEPENDENT ON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE; 94257757.
SATOH T., KOBAYASHI K.,
                                                                                                                                                                                                                         PROSITE; PS00
GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                   DISULFIDE BONDS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-FEB-1991 (REL. 17, CREATED)
01-FEB-1991 (REL. 17, LAST SEQUENCE UPDATE)
01-FEB-1996 (REL. 33, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 1 PRECURSOR (TIMP-1) (EMBRYOGENIN-1)
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                                                                                                                                                                      CHAIN
                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                            SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 90008914
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BIOL. REPROD.
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FREUDENSTEIN J., WAGNER
BIOCHEM. BIOPHYS. RES. (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                 DE CLERCK Y.A., YEAN T.D., RATZKIN F. BIOL. CHEM. 264:17445-17453(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                182
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79; Conser
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METAZOA; CHORDATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YASHI K., YAMASHITA
50:835-844(1994)
                                                                                                                                                                                                                           METALLOPROTEASE
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             METALLOPROTEINASE I
BY SIMILARITY.
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Pred. No. 1.46e-104;
                                                                                                                                                                                                                           INHIBITOR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
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   CRC32;
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                                                                                                                                                                                                                         ERYTHROCYTE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     LANGLEY K.E.;
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                                                                                                                                                                                                                                                                                                                                                                            PRESENCE
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                                                                                                                                                                                                                           MATURATION;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCHEIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               K.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HOSHI H.;
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RESOLUTION OF THE PROPERTY OF 
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Best Local S
Matches 7
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Best Local Similarity
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MEDLINE; 94102210.
SMITH G.W., GOETZ T.L., ANTHONY
ENDOCRINOLOGY 134:344-352(1994)
-i- FUNCTION: COMPLEXES WITH ME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
METALLOPROTEINASE INHIBITOR 1 PRECURSOR (TIMP-1).
                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OVIS ARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P50122;
                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PS00288; TIMP; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -!- SIMILARITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND IRREVERSIBLY INACTIVATE THEM.
-!- PTM: THE ACTIVITY OF TIMP-1 IS DEPENDENT ON THE PRESENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TIM1_SHEEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          187
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MASGILLLLMITAPSRACTCVPPHPQTAFCNSDVVIRAKFVGTAEVNE-TALYQRYEIKM 65
                                    eikqikmfkgpekdiefiytapssavcgvsldvggkke-yliagkaegdgkmhitlcdfi 130
                                                                                                                                                                GILLLWLTAPSRACTCVPPHPQTAFCNSEVVIRAKFVGTAEVNE-TALYQRYEIKMTK- 67
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                                                                       MFKGFSALRDAP-DIRFIYTPAMESVCGYFHRSQNRSEEFLIAGQL-SNGHLHITTCSFV 125
                                                                                                                     gllllatllrpadacscspvhpqqafcnadvvirakavsekevdsgndiygn-pikriqy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S67450; G456990;
                                                                                                                                                                                                           Similarity 76; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ARTIODACTYLA.
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                                                                                                                                             31.5%;
                                                                                                                                                                                                                             31.3%;
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                                                                                                                                          MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER
                                                                                                                                                                                                                                                                                                                                                    METALLOPROTEINASE I
BY SIMILARITY.
                                                                                                                                                                                                         Score 515; DB 1; L4
Pred. No. 9.28e-104;
42; Mismatches 69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 517; DB 1; L
Pred. No. 2.70e-104;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                METALLOPROTEINASES (SUCH AS COLLAGENASES)
                                                                                                                                                                                                                                                                                                               POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                              890A6EEB CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEMBERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              THE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TIMP
                                                                                                                                                                                                                                                Length 207;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INHIBITOR 1.
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Matches 7
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                                                                                                                                                        DISULFID DISULFID DISULFID
                                                                                                         CONFLICT
                                                                                                                                                                                           DISULFID
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                                                                                                                                                                                                                                                                                                     EMBL; U06179; G468058;
EMBL; L31883; G1161234;
EMBL; U16022; G562119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-WISTAR; TISSUE-SI MEDLINE; 95011636.
OKADA A., GARNIER J.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-APR-1993 (REL.
01-NOV-1995 (REL.
01-OCT-1996 (REL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               METALLOPROTEINASE INHIBITOR 1 PRECURSOR (TIMP-1).
TIMP1 OR TIMP-1.
                                                                                               SEQUENCE
                                                                                                                                 CARBOHYD
                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                            SIGNAL
                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                    GLYCOPROTEIN; METALLOPROTEASE INHIBITOR; ERYTHROCYTE MATURATION;
                                                                                                                                                                                                                                                                                                                                          DISULFIDE BONDS
                                                                                                                                                                                                                                                                                                                                                                                        ROSWIT W.T., MCCOURT D.W., PARTRIDGE N.C., JEFFREY J.J.;
ARCH. BIOCHEM. BIOPHYS. 292:402-410(1992).
-!- FUNCTION: CONPLEXES WITH METALLOPROTEINASES (SUCH AS COLLAGENASES)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GIBBONS K.L., O'GRADY R.L., PIPER A.A.;
SUBMITTED (JAN-1996) TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                                                                                                                                                                 -!- PTM: THE ACTIVITY OF TIMP-1
                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 24-45.
MEDLINE; 92117648.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-TESTIS;
BOUJRAD N., GA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 39-156 FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENE 147:301-302(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RATTUS NORVEGICUS (RAT)
                                                                                                                                                                                                                                                                                  PROSITE; PS00288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             186 HLACLPREPGMCTW 199
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            7 LASGILLLISLIASSKACSCAPTHPQTAFCNSDLVIRAKFMGSPEI-IETTLYQRYEIKM 65
                                                                                                                                                                                                                                                                                                                                                                               AND IRREVERSIBLY INACTIVATE
vpwdtlsttqkkslnhryqmgce-ckitrcpmipcyisspdeclwmdwvtekninghqak
                                                           Similarity
                                              78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (OCT-1994)
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                                              Conservative
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                                                                                                                                                                                                                                                                                                                                          HIGH WITH OTHER MEMBERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25, CREATED)
32, LAST SEQUENCE UPDATE)
34, LAST ANNOTATION UPDATE
                                                                                                                                                                                                                                                                                  TIMP;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       203
                                                                                              23793 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MARTIN B.M., PAPADOPOUI EMBL/GENBANK/DDBJ DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VICAIRE S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DORSAL;
                                                                                                                                                      METALLOPROTEINASE INHIBITOR 1.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                            Score 508; DB 1; I
Pred. No. 6.98e-102;
39; Mismatches 78:
                                                                                                        POTENTIAL.
POTENTIAL.
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/DDBJ DATA BANKS
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CRC32;
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                                                                   Length 217;
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                                              Gaps
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Searc]	Qγ	Db	Ωy	망	Qy	DЪ	
Search completed: Mon May 4 14:49:58 1998	187 qakffac1krsdgscaw-yrgaa 208	183 QSDHFACLPRNPDLCTWQYLGVS 205		123 SFLVPWHNLSPAQQKAFVKTYSAGCGVCTVFPCSAIPCKLESDSHCLWTDQILMGSEKGY 182	69 iqyeikqikmfkgpekdiefiytapssavcg-vsldvggkkeyliagkaegdgkmhitlc 127	66 TK-MLKGEDAV-GNATGFRFAYTPAMESLCGYVHKSQNRSEEFLIAGRLR-NGNLHITAC 122	,
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Release 3.0.5AA John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1997 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch_nn n.a. - n.a. database search, using Smith-Waterman algorithm Mon May 4 14:42:49 1998;

on:

>Q06584 (1-1033) from n-geneseq.seq 1033

1 attccggccgccgtccccc......aacactcatccccggaattc 1033 taaggccgggcggcaggggg.....ttgtgagtaggggccttaag

Tabular output not generated. MasPar time 144.53 Seconds 824.777 Million cell updates/sec

Scoring table: TABLE default Gap 6 Description:
Perfect Score:
N.A. Sequence:
Comp:

Title:

Nmatch STD: Dbase 0; Query 0

Searched: 159651 seqs, 57698962 bases x 2

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

-geneseq30
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part9 10:part10 11:part11 12:part12 13:part13 14:part14 15:part15 16:part16 17:part17 18:part18 19:part19 20:part20 21:part21 22:part22 23:part23 24:part24 25:part25 26:part26 27:part27 28:part28 29:part24 25:part25 31:part31 32:part32 33:part33

tistics: Mean 9.064; Variance 6.093; scale 1.488

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES .

Result	. Score	Query Match	Length	DB 1	IB .	Description	Pred. No.
	1033	100.0	1033	إ ب	206584	Sequence encoding hum	0.00e+00
	2 1031	99.8	1033	13	Q73088	Human metalloproteina	0.00e+00
	3 701	67.9	730	μ.	Q05940	Complete sequence of	0.00e+00
	4 663	64.2	840	۳	Q05938	TIMP-2 metalloprotein	0.00e+00
	5 639	61.9	832	Н	Q05939	TIMP-2 metalloprotein	0.00e+00
	629	60.9	671	28	T64341	Human small tissue in	0.00e+00
	7 599	58.0	1045	μ	Q06583	Sequence encoding bov.	0.00e+00
	8 599	58.0	1045	13	Q73087	Bovine metalloprotein	0.00e+00
	9 288	27.9	302	21	T26262	Human gene signature	1.22e-157
_	0 105	10.2	675	22	T34433	Tissue inhibitor of m	7.46e-45
_	1 103	10.0	675	32	T80986	Tissue inhibitor of m	1.15e-43
c 1	2 73	7.1	1047	N	Q10572	Human Natriuretic Pep	3.92e-26
,_	3 69	6.7	1047	ν	Q10572	Human Natriuretic Pep	7.50e-24
1	65	6.3	820	16	T02361	TIMP-3 clone Timp3HCM	1.38e-21
سر :	5 65	6.3	963	16	T02360	TIMP-3 DNA clone Timp	1.38e-21
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Q70465 T76294	Q70468 Q70468	Q70469 T76170	T76452 T76274	T76405 T76405	T76274 Q73092	N81164 .	Q51746	T76143	T76445	T76307	Q51746 T76233	073093	Q73094	Q06585 Q82740	086744	082747	T02359
Generic DNA sequence Human defensin 1 anti	Generic DNA sequence	Generic DNA sequence Human IL3 receptor an	Chymase antisense oli Human neutrophil elas	Human endothelin-1 an Human endothelin-1 an	Human neutrophil elas Human metalloproteina		nucleotide prob	Human intercellular a	Substance P receptor		Oligonucleotide probe Human IL6 antisense o	Human metalloproteina		Synthetic fragment of Mouse tissue inhibito	TIMP-3 metalloprotein	issue inh	TIMP-3 DNA clone Timp
5.24e-07 5.24e-07 5.24e-07	5.24e-07 5.24e-07	5.01e-08 1.63e-07	1.53e-08 1.53e-08	4.64e-09 4.64e-09	1.40e-09 4.64e-09	1.40e-09	1.40e-09	1.25e-10	1.09e-11	1.09e-11	1.09e-11 3.69e-11	.09e-		1.84e-20 4.03e-17		386	1.38e-21

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R WPI; 94-343309/43.

R P-PSDB; R62769.

T New metallo:proteinase inhibitor, analogues and DNA - for treating tumour cell dissemination, rheumatoid arthritis an large-scale recombinant inhibitor prodn.

C Claim 12; Fig 2; 65pp; English.

C Q73088 encodes R62769 human metalloproteinase inhibitor (MI may be used to inhibit tumour cell dissemination and for tremamatoid arthritis, dystrophic epidermolysis bullosa, emp. C and osteoporosis. The DNA may be used to detect MI gene dissequence 1033 BP; 215 A; 360 C; 305 G; 153 T;
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09-NOV-1994.
18-MAY-1990;
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Metalloproteinase inhibitor; tumour cell dissemination; rheumatoid arthritis; distrophic epidermolysis bullosa; emphysema; osteoporosis; MI gene disorders; ss.
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21-MAR-1989; US-326334.
47-JUL-1989; US-326431.
18-AUG-1989; US-395453.
13-MAR-1990; US-494796.
(USSH) NAT INST OF HEALTH.
Steller-Sevenson WG, Liotta
                                                                                                                                                                                                                                                     Q05940;
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                                             Stetler-Sevenson WPI: 90-290097/38.
P-PSDB; R06898.
                                                                                                                                                                                                                        Complete sequence of huma matrix metalloproteinase
New matrix metallo-proteinase inhibitor resulting from matrix metallo-proteinase diagnosis, detection and purific. Disclosure; Fig 7: 54pp; English. TIMP-2 was isolated from human melanoma of
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See also Q05937, R06746-R06750, R06894-R06895 and Q05938-Q05939. Sequence 730 BP; 189 A; 209 C; 201 G; 131 T;
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Pred. No. 0.00e+00;
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TIMP-2 metalloproteinase matrix metalloproteinase Synthetic.

inhibitor; inhibitor encoding inhibitor; TIMP-2;

pSS15;

pSS15

Q05938; 16-JAN-1991 Q05938

(first entry)

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PS Disclosure; Fig 6A; 54pp; English.

CC TIMP-2 was isolated from human melanoma cell-conditioned media and the amino acid sequence determined. A probe was synthesised based upon the protein sequence information. It was used to screen comparity of the protein sequence information. It was used to screen comparity of the solution of 150,000 plaques screened. CC positives were identified from a total of 750,000 plaques screened. CC further analysis and screening with additional probes eliminated to encode CSC-21K (=TIMP-2), a novel metalloproteinase inhibitor. CC see also US331407 and w09010228.

CSee also US337, R06746-R06750, R06894-R06895 and Q05939-Q05940.
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21-AUG-1990: 4
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Stetler-Sevenson WG, Liotta
WPI; 90-290097/38.
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                                     gttcttcgcctgcatcaagagaagtgacggctcctgtgcgtggtaccgcgggggggcgcc
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larity 99.0%;
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US-380431.
US-395453.
US-494796.
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Pred. No. 0.00e+00;
0; Mismatches 5;
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TIMP-2 was isolated from human melanoma cell-conditioned media and the amino acid sequence determined. A probe was synthesised the amino acid sequence information. It was used to screen a Lambdadem-4 cDNA library prepared from human melanoma cells. 239 positives were identified from a total of 750,000 plaques screened. Further analysis and screening with additional probes eliminated all but two clones (pSS15 and pSS18). Both were sequenced and found to encode CSC-21K (-TIMP-2), a novel metalloproteinase inhibitor. See also QS537, R06746-R06755, R06894-R06895, QOS938 and QOS940.
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21-MAR-1989; US-386334.
17-JUL-1989; US-380431.
18-AUG-1989; US-395453.
18-AWR-1990; US-494796.
(USSH) NAT INST OF HEALTH.
Stetler-Sevenson WG, Liotta L#
WPI; 90-290097/38.
P-PSDB; R06897.
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TIMP-2 metalloproteinase i
matrix metalloproteinase i
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larity 99.7%;
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The present sequence is that of the human small tissue inhibitor metalloprotease 2 (TIMP2) DNA. Expression of this sequence is negatively correlated with brain tumour malignancy, i.e. relative expression levels are: normal brain tissue > astrocytoma > anaplastic astrocytoma > glioblastoma. By determining the level of TIMP 2 expression in human brain tissue, the malignancy of cerebr tumours can be evaluated.

Sequence 671 BP; 177 A; 184 C; 196 G; 114 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human small tissue inhibitor metalloprotease 2 Human; small tissue inhibitor metalloprotease; brain tumour; malignant; diagnosis; ds.
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22-JUN-1995; JP-156307.
(EISA) EISAI CO LTD.
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human small tissue inhibitor metallo:protease 2 gene - use detection of cancer, and to inspect malignancy of cerebral
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1 Similarity 100.0%;
629; Conservative
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Query Match
Best Local s
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                                                                          Claim 12; Fig 1; 63pp; English.
Sequence may be used to transform a procaryotic or eukaryotic expression system to give a product with all the biological properties of naturally occuring metalloproteinase inhibitor. The product has therapuetic use in inhibiting tumour dissemination during chemotherapy and radiation therapy, impurged bone marrow ce harvesting etc. The inhibitor may also be useful in encapsulating tumours aiding clean excision, and in treatment of enphysema, Page disease, osteoporosis, scleroderma and bedsores.

The gene product also has application in autoimmune disorders eg. Theumatoid arthritis and multiple sclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                       mat_peptide
/*tag= b
EP-398753-A.
                                                                                                                                                                                                                                  New metallo-proteinase inhibitor polypeptide(s) - and DNA encoding them, for treatment of tumour cell dissemination rheumatoid arthritis
                                                    See also Q06584.
Sequence 1045 BP;
                                                                                                                                                                                                                                                                               P-PSDB; R07954
                                                                                                                                                                                                                                                                                          Langley KE, Boone 1
WPI; 90-350481/47.
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29-MAR-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bos taurus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence encoding bovine metalloproteinase inhibitor. Tumour; chemotherapy; cancer; Paget's disease; osteop
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                                                                                                                                                                                                                                                                                                      (AMGE") ATTUEN ATTUENTS HOSPITAL OF CHIL-) CHILDREN'S HOSPITAL OF CAPTURE KE, Boone TC, DeClerck
                                                                                                                                                                                                                                                                                                                                    (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      scleroderma;
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llarity 89.6%;
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Score 599; DB 1; LA
Pred. No. 0.00e+00;
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sig_peptide
/*tag= b
EP-623676-A.
09-NOV-1994.
18-MAY-1990;
                                              emphysema;
Bos taurus.
Key
                                                        13-JUL-1995 (first entry)
Bovine metalloproteinase inhibitor; tumour cell dissemination;
Metalloproteinase inhibitor; tumour cell dissemination;
rheumatoid arthritis; dystrophic epidermolysis bullosa;
emphysema; osteoporosis; MI gene disorders; ss.
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Q73087 standard;
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Matches 70
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Claim 12; Fig 1; 65pp; English.

Q73087 encodes R62768 bovine metalloproteinase inhibitor (MI), it may be used to inhibit tumour cell dissemination and for treating rheumatoid arthritis, dystrophic epidermolysis bullosa, emphysema and osteoporosis. The DNA may be used to detect MI gene disorders. Sequence 1045 BP; 219 A; 350 C; 311 G; 165 T;
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29-MAR-1990; US-501904.
(AMGE-) AMGEN INC.
(CHIL-) CHILDRENS HOSPITAL LOS ANGELES.
BOONE TC, Declerck YA, Langley KE;
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Similarity 89.6%;
706; Conservative
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0; M
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T34433 standa
T34433;
T34433;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3'-end of mRNA by using poly(T) as the sole primer. Since the 3'-untranslated sequence is unique to a particular mRNA species, almost all the 3'-oriented cDNAs hybridise with specific mRNAs. Each library is constructed so as to reflect accurately the relative abundance of different mRNAs in the particular tissue from which it was derived. The appearance frequency of a given GS in a CDNA library can be determined (esp. using primers and probes derived from the GS sequences) as a means of diagnosing abnormal cell function or for recognising different cell types.

Sequence 302 BP; 75 A; 96 C; 75 G; 53 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A single-stranded DNA (or its complementary strand or the corresp. double-stranded DNA) which comprises one of the 7837 "GS" sequences given in T19001-T26837 and which is able to hybridise to part of human genomic DNA, CDNA or mRNA is claimed. The GS (Gene Signature) sequences were obtained from 3'-directed cDNA libraries prepared from various human tissues; synthesis of cDNA was initiated from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Identifying gene signatures in 3'-directed human cDNA library for diagnosis of abnormal cell function, by preparing cDNA that reflects relative abundance of corresp. mRNA in specific human
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WPI; 95-206931/27.
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12-NOV-1993; JP-355504.
(MATS/) MATSUBARA K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T26262 standard;
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Similarity 99.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          diseases,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-DEC-1994; WO-U14498. (HUMA-) HUMAN GENOME SOGreene JM, Rosen CA; WPI; 96-300644/30.
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mat_peptide
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13-DEC-1994; U14498
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                                                            693 gtaccagatgggctgcgagtgcaagatcacgcgctgccccatgatcccgtgctacatctc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          279 gctggcgctcggcctcctgctgctggcgacgctgcttcgcccggccgacgcctgcagctg
                                                                                                                     633 tgacttcatcgtgccctgggacaccctgagcaccacccagaagaagagcctgaaccacag
                                                                                                                                                                                                                                                                                                                                                                      399 ggtcagtgagaaggaagtggactctggaaacgacatttatggcaaccctatcaagaggat
                                                                                                                                                                                                                                                                                                                                                                                                                                                  96 cgccccggcgcaccctcagcagcagatctgccactcggcacttgtgattcgggccaaaat 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             36 gctgttgctgcggctgctgcggttgctgcggcccccgggggctggggtgaggcatgcagctg
                                                                                                                                                                                                  ggcccctaacgagtgcctctggacagactggctgtttggaacgaaagctctatggttacca
                                                                                                                                                                                                                                                                                                                                                                                                 ctccagtgagaaggtagttccggccagtgcagaccctgctgaca---ctgaaaaaatgct
                                                                                                                                                                                                                                                                                                                                                                                                                                  ctccccggtgcacccgcaacaggcgttttgcaatgcagatgtagtgatcagggccaaagc
 ctccccggacgagtgcctctggatggactgggtcacagagaagaacatcaacgggcacca
                                                                                                                                                                                  gaaggaatatctcattgcaggaaaggccgagggggacggcaagatgcacatcaccctctg
                                                                                                                                                                                                                                             gtttatctacacggccccctcctcggcagtgtgtgggggtctcgctggacgttggaggaaa
                                                                                                                                                                                                                                                                                                         ccagtatgagatcaagcagataaagatgttcaaagggcctgagaa-----ggatataga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           391;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    153 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 105; DB 22;
Pred. No. 7.46e-45;
0; Mismatches 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene therapy; diagnosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      184 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      184 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         232;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 675;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      154 T;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local S
Matches 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence encodes a tissue inhibitor of metalloproteinases designated TIMP-4. This clone was identified with Incyte Clone No. 589345. TIMP-4 can be used to treat disorders associated with excessive metalloprotease expression, e.g. tumour metastasis, angiogenesis and growth, osteorarthritis, osteoporosis, pulmonary emphysema, periodontal disease and rheumatoid arthritis, and for contraception. TIMP-4 cDNA can be used for gene therapy of such disorders and in diagnostic assays for TIMP-4 mRNA in cells and tissues. Oligonucleotide fragments of the TIMP-4 cDNA and antagonists or inhibitors of TIMP-4 can be used to treat disorders associated with over-expression of TIMP-4, e.g. to promote healing of corneal and diabetic ulcers and ulcers/lesions caused by microorganisms. Antibodies to TIMP-4 can be used to diagnose such ulcers or lesions. Sequence 675 BP; 154 A; 186 C; 181 G; 154 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-NOV-1997 (first entry)
Tissue inhibitor of metalloproteinase, TIMP-4, cDNA.
Tissue inhibitor of metalloproteinase; TIMP-4; Incyte Clone No. 589345;
metalloprotease; tumour metastasis; angiogenesis; growth; osteoarthritis;
osteoporosis; pulmonary emphysema; periodontal disease; diabetic ulcer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA encoding a tissue inhibitor of metallo:proteinase(s), for production of recombinant protein for treating tumours arthritis, etc., and for contraception Claim 3; Fig 1; 24pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (INCY-) INCYTE PHARM INC.
Hawkins PR, Murry LE;
WPI; 97-350238/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T80986;
T80986;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       НОТО
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JS5643752-A.
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8-JAN-1996; US-588163.
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                                         atatatctatacgccttttgactcttccctctgtggtgtgaaactagaagccaacagcca
                                                                                                                                                                ccggtatgaaatcaaacagataaagatgttcaaagggtttgagaaagtcaaggatgttca
-tcta-c-acg-gcccctc-ctcggcagtgtgtggggtctcgctggacgttggaggaaa
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l Similarity 61.7%;
390; Conservative
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Pred. No. 1.15e-43;
0; Mismatches 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches 233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene therapy; corneal ulcer; ss.
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   RESULT REPORT OF THE FIRST STATES OF THE FIRST
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                                                          22-JUN-1990; U03586.
23-JUN-1989; US-370673.
(GETH ) GENENTECH INC.
Chang M, Goeddel D, Lowe
WPI; 91-036711/05.
N-PSDB; Q10324.
                                                                                                                                                                                                                                                                                                                                                                                              /label= n // Modified -site 2// Modified -site 2// Modified -site 3/9/ Modified -site 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q10572;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /label= n-glycos_site
Modified -site 195..197
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Modified -site 161..163
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Modified -site 35..37
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                                                                                                                                                                                                                                                                                                                                                                Modified -site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /label= N-glycos_site
Modified -site 244..246
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                                                                                                                                                                                                                              22-JUN-1990;
                                                                                                                                                                                                                                                                   0-JAN-1991.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label- extracellular domain
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The sequence was derived from the DNA encoding natriuretic peptide receptor B. NPRB, having guanyl cyclase (GC) activity and protein kinase activity. The DNA can be inserted into expression vectors for the prodm. of the protein, opt. after being mutated to produce NPRB analogues. The protein has a mol wt. of 115 kD (calculated Mre 114,952). The protein (or variants) can be used in treatment of affinity chromatography. Antibodies with affinity for NPRB can affinity chromatography. Antibodies with affinity for NPRB can
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Pred. No. 3.92e-26
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Best Local
                                                                                                                                                                                                                                             Natriuretic protein receptor B - for diagnosis and treatment of kidney failure, heart failure, hyperaldosteronism, glaucoma etc. Claim 3; Fig 1; 49pp; English.

The sequence was derived from the DNA encoding natriuretic peptide receptor B, NRRB, having guanyl cyclase (GC) activity and protein kinase activity. The DNA can be inserted into expression vectors for the prodn. of the protein, opt. after being mutated to produce NPRB analogues. The protein has a mol wt. of 115 kD (calculated Mr-114,952). The protein (or variants) can be used in treatment of natriuretic peptide disorders, and also to isolate peptides using affinity chromatography. Antibodies with affinity for NPRB can
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09-APR-1991 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC.
Chang M, Goeddel D, Lowe D;
WPI; 91-036711/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-JUN-1990;
23-JUN-1989;
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Modified -site 277..279
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Modified -site 244..246
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wodified -site 195..197
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Modified -site 161..163
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/label= signal sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'label= N-glycos_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "binds natriuretic peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nyperaldosteronism; glaucoma; guanyl cyclase.
                                                                                           434 sdnnncandnddnscdktnnstnanvangtgntnnmngvssnnnnrknmnnknnas-mnw 492
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'label= mature NPBR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'label- cytoplasmic domain
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                                                       cgcgcccccgagacaaagaggagaaagtttgcgcggccgagcggggcaggtgaggagg 125
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e 1047 BP;
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d -site 349...
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d -site 600...
                                                                                                                                                       Similarity
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US-370673.
                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..351
                                                                                                                                                     6.7%;
                                                                                                                                                                                                               87 A;
                                                                                                                                 Score 69; DB 2; Length 1047;
Pred. No. 7,50e-24;
181; Mismatches 361; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 activity"
                                                                                                                                                                                                               15 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A,B and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          heart failure;
                                                                                                                                                                                                             83 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                               51
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    Query Match
Best Local S
Matches 17
                                                       cell disorders, etc.

Example 4; Page 69-70; 112pp; English.

CDNA clone Timp3HCM-3 (T02351) codes for a natural variant (R84217) of tissue inhibitor metalloproteinase 3 (TIMP-3), lacking a portion of the N-terminus of the mature protein in comparison with the clone Timp3clone 7 product (R84215) Timp3HCM-3 was isolated from a human colonic mucosa cDNA library using primers based on TIMP sequences. The CDNA is pref. expressed in Escherich: coll for use in recombinant TIMP-3 product (R84215) Timp3HCM-3 was also be useful for gene therapy e.g. of emphysema.

Sequence 820 BP; 204 A; 225 C; 188 G; 203 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-FEB-1996 (first entry)
TIMP-3; tissue inhibitor metalloproteinase type three; cancer;
                                                                                                                                                                                                                                    New tissue inhibitor metallo:proteinase cancer, inflammation, emphysema, embryo
                                                                                                                                                                                                                                                                        P-PSDB; R842;
                                                                                                                                                                                                                                                                                                                      06-OCT-1993; US-134231 (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                04-OCT-1994; U11241.
                                                                                                                                                                                                                                                                                                                                                                                  WO9509918-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             scleroderma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       inflammation; emphysema; embryo implant modulation; a dystrophic epidermolysis bullosa; peridontal disease;
                                                                                                                                                                                                                                                                                                     Koski
                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             atgttcaaagggcctgagaaggatatagagtttatctacacggccccctcctcggcagtg
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      170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard;
    h 6.3%;
Similarity 61.8%;
170; Conservative
                                                                                                                                                                                                                                                                                                                    AMGEN INC
                                                                                                                                                                                                                                                                                                    Silbiger SM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            vulnerary; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
1..495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA;
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   Score 65; D
Pred. No. 1.
0; Mismatc
      Mismatches 105;
                DB 16;
1.38e-21;
                                                                                                                                                                                                                                    type three - for treating implant modulation, nerve
                                Length 820;
   Indels
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Gaps
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Matches 17
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Example 4; Page 67-68; 112pp; English.

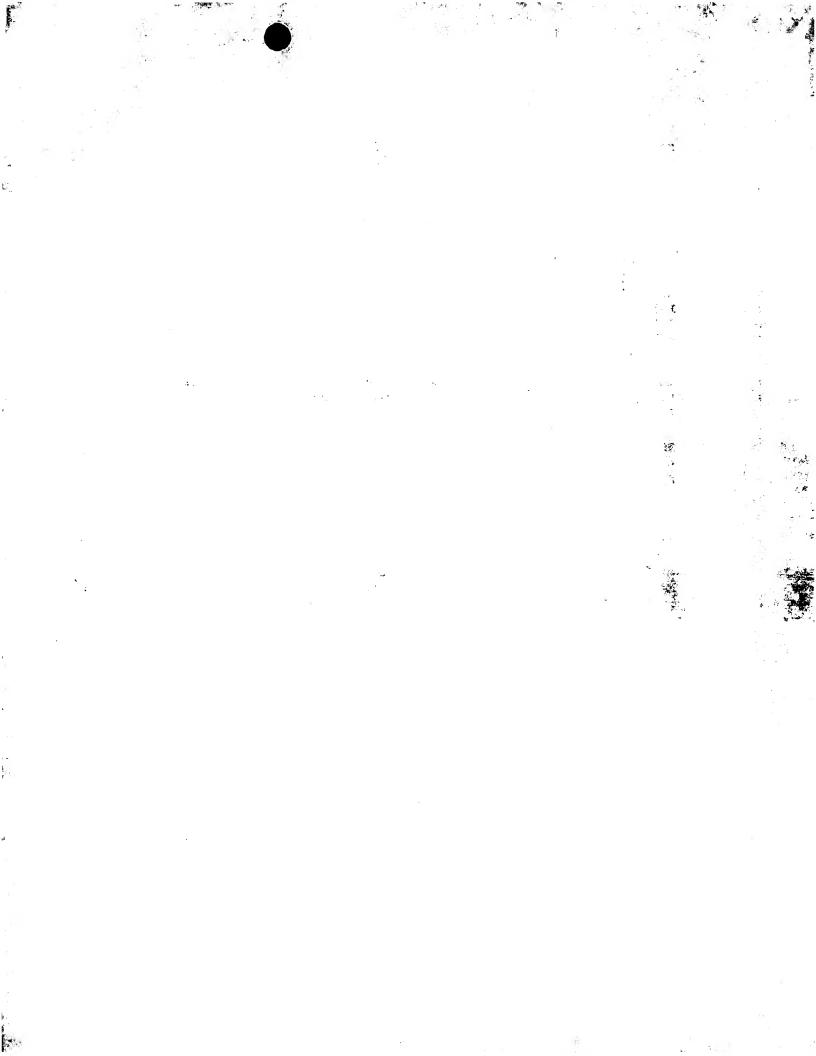
CDNA clone Timp3clone2 (T02360) codes for a natural variant (R84216) of tissue inhibitor metalloproteinase 3 (TIMP-3), lacking part of the signal peptide of the Timp3clone 7 product (R84215). The cDNA clone was isolated from a human 20 and 24 wk foetal kidney cDNA library using primers based on TIMP sequences. The cDNA is pref. expressed in Escherichia coli for use in recombinant TIMP-3 prodn. Genes coding for TIMP may also be useful for gene therapy
                                                                                                                                                                                                                    e.g. of emphysema.
Sequence 963 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TIMP-3 DNA clone Timp3-clone2.
TIMP-3; tissue inhibitor metalloproteinase type three; inflammation; emplysema; embryo implant modulation; au dystrophic epidermolysis bullosa; peridontal disease;
                                                                                                                                                                                                                                                                                                                                                                  New tissue inhibitor metallo:proteinase type three - for trocancer, inflammation, emphysema, embryo implant modulation,
                                                                                                                                                                                                                                                                                                                                                                                                   P-PSDB; R84216
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                                                                                                                                                                                                                                                                                                                                                                                                                           Koski RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-OCT-1993;
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04-OCT-1994;
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WO9509918-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T02360 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
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               tgctactacctgccttgctttgtgacttccaagaacgagtgtctctggaccgacatgctc 469
                                                                    tcccagcgcaaggggctgaactatcggtatcacctgggttgtaactgcaagatcaagtcc 409
                                                                                                        gacggcaagatgcacatcaccctctgtgacttcatcgtgccctgggacaccctgagcacc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
170; Conse
                                                                                                                                                                                                                                                                                                                                                                                                                         Silbiger SM;
                                                                                                                                                              6.3%;
larity 61.8%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vulnerary;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers 2..598
                                                                                                                                                                                                                      227 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP
                                                                                                                                                              Score 65; DB 16;
Pred. No. 1.38e-21;
0; Mismatches 105
                                                                                                                                                                                                                      276 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SS
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                                                                                                                                                                                                                    231 G;
                                                                                                                                                                105;
                                                                                                                                                                                      Length 963;
                                                                                                                                                                Indels
                                                                                                                                                                                                                   229 T;
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                                                                                                                                                                                                                                                                                                                                                                                  treating
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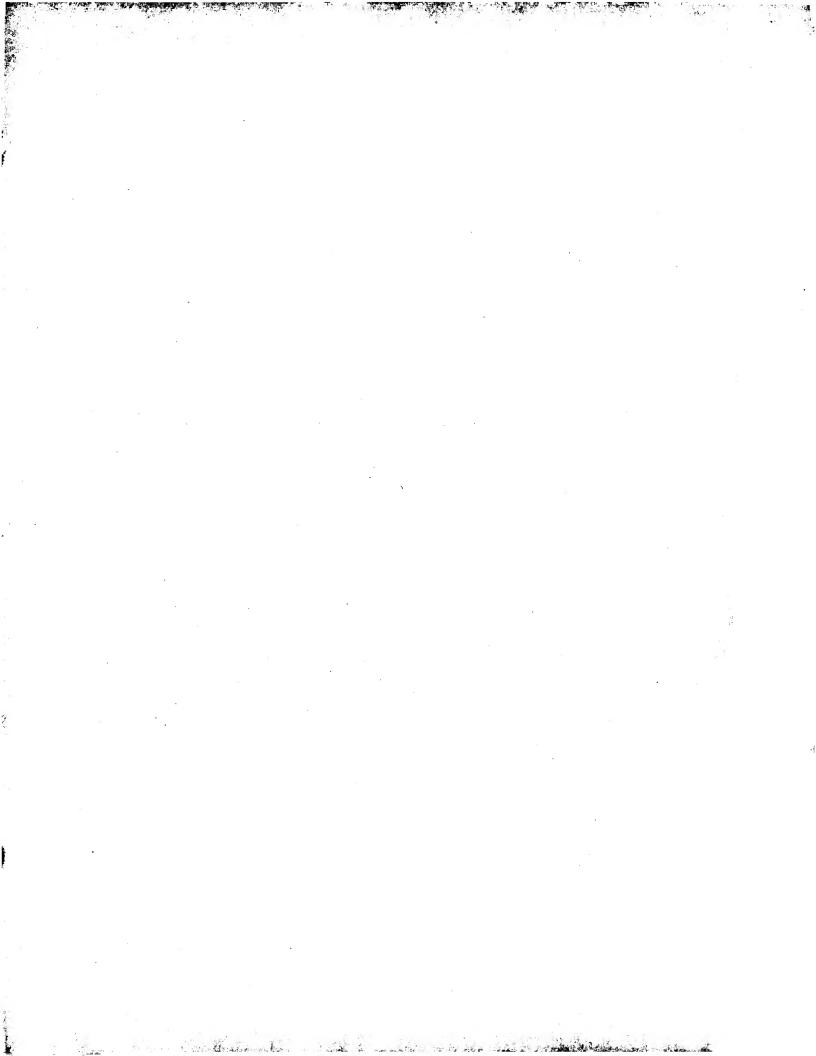
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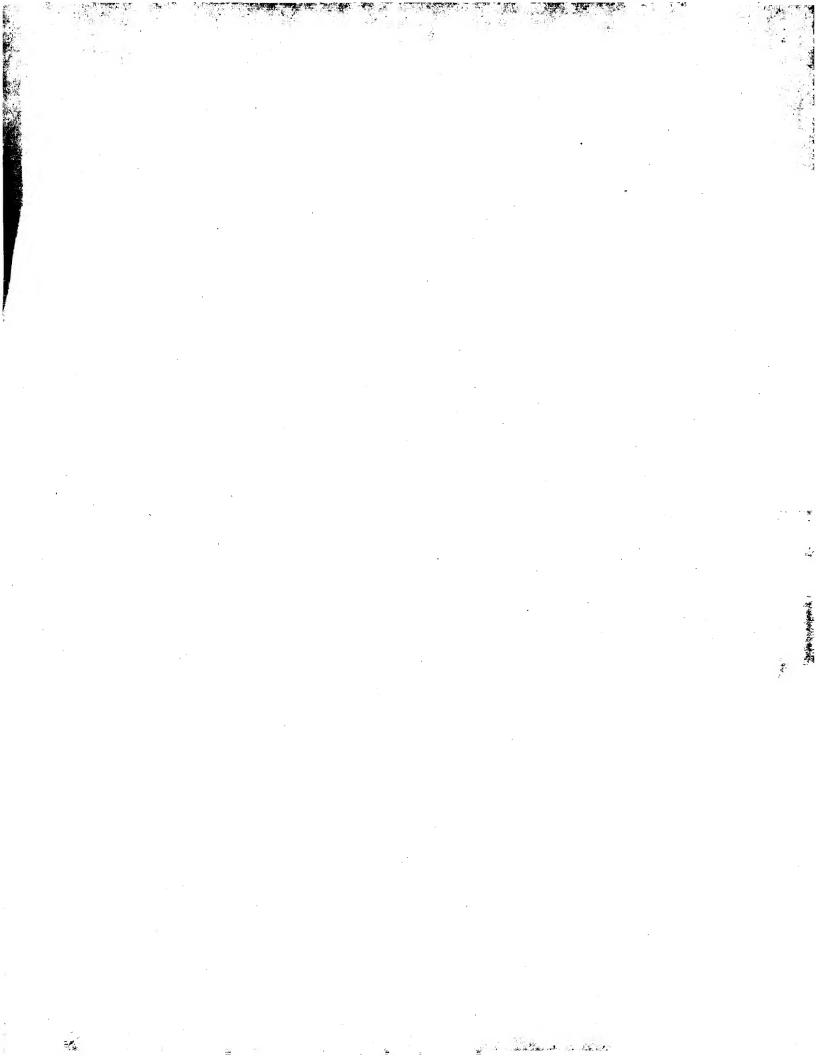
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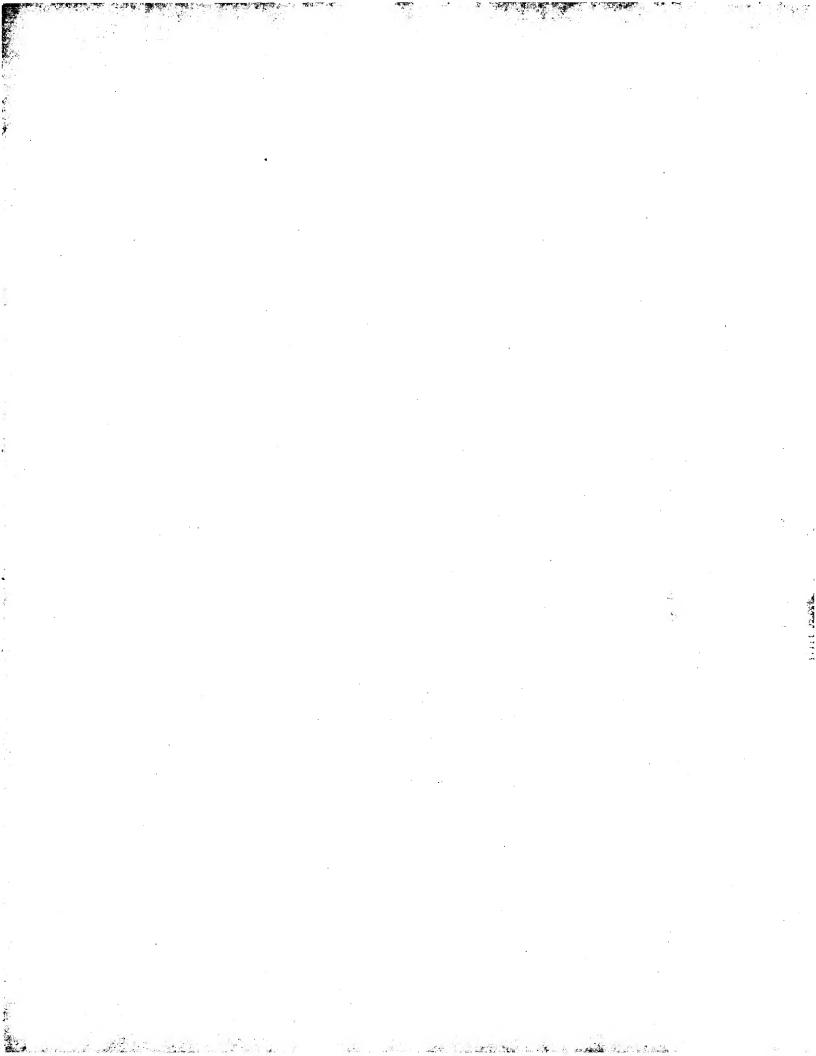
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     Wilhelm S M; Co
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     Division of Dermatology, Washington University School of Medicine,
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     St. Louis, Missouri 63110.
     AR 39427 (NIAMS)
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     AR 07284 (NIAMS)
     JOURNAL OF BIOLOGICAL CHEMISTRY, (1989 Oct 15) 264 (29)
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     17213-21.
     Journal code: HIV. ISSN: 0021-9258.
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     ANSWER 3 OF 82 MEDLINE
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ΑN
     90046765
                  MEDLINE
     90046765
DN
     Human 72-kilodalton type IV collagenase forms a complex with a
TI
     tissue inhibitor of metalloproteases designated
     TIMP-2.
     Goldberg G I; Marmer B L; Grant G A; Eisen A Z; Wilhelm S; He C S
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     Division of Dermatology, Washington University School of Medicine,
     Saint Louis, MO 63110.
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     OF AMERICA, (1989 Nov) 86 (21) 8207-11.
     Journal code: PV3. ISSN: 0027-8424.
CY
     United States
     Journal; Article; (JOURNAL ARTICLE)
DT
     English
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     Priority Journals; Cancer Journals
FS
     199002
EM
                                                         DUPLICATE 4
     ANSWER 4 OF 82 MEDLINE
L5
     89109210
                  MEDLINE
AN
     89109210
DN
     Independent regulation of collagenase, 72-kDa progelatinase, and
TI
     metalloendoproteinase inhibitor expression in human fibroblasts by
     transforming growth factor-beta.
     Overall C M; Wrana J L; Sodek J
AU
     Medical Research Council Group in Peridontal Physiology, University
CS
     of Toronto, Ontario, Canada.
SO
     JOURNAL OF BIOLOGICAL CHEMISTRY, (1989 Jan 25) 264 (3)
     1860-9.
     Journal code: HIV. ISSN: 0021-9258.
     United States
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     Cancer Journals; Priority Journals
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     ANSWER 5 OF 82 MEDLINE
                                                         DUPLICATE 5
T.5
ΑN
     90037592
                  MEDLINE
DN
     90037592
     Synovial procollagenase activation by human mast cell tryptase
     dependence upon matrix metalloproteinase 3 activation.
     Gruber B L; Marchese M J; Suzuki K; Schwartz L B; Okada Y; Nagase H;
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Administration, prthport, New York 11768.
     AR-39189 (NIAMS
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     AI-20487 (NIAID)
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     JOURNAL OF CLINICAL INVESTIGATION, (1989 Nov) 84 (5)
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     Journal code: HS7. ISSN: 0021-9738.
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     United States
     Journal; Article; (JOURNAL ARTICLE)
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     199002
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    ANSWER 6 OF 82 MEDLINE
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                 MEDLINE
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     90026246
     90026246
DN
     Dissociation of tissue inhibitor of metalloproteinases (
ΤI
     TIMP) from enzyme complexes yields fully active inhibitor.
     Murphy G; Koklitis P; Carne A F
ΑU
CS
     Strangeways Research Laboratory, Cambridge, U.K.
     BIOCHEMICAL JOURNAL, (1989 Aug 1) 261 (3) 1031-4.
SO
     Journal code: 9YO. ISSN: 0264-6021.
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     ENGLAND: United Kingdom
     Journal; Article; (JOURNAL ARTICLE)
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     Priority Journals; Cancer Journals
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    199001
    ANSWER 7 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
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AN 89:416492 BIOSIS
DN BR37:71955
TI EFFECT OF CYTOKINES ON 72KDA METALLOPROTEINASE AND
  TIMP IN GINGIVAL AND PERIODONTAL LIGAMENT FIBROBLASTS.
AU RICHARDS D; HIBBS M S; RUTHERFORD R B
   UNIV. CONN., FARMINGTON, U.S.A.
SO 67TH GENERAL SESSION OF THE INTERNATIONAL ASSOCIATION FOR DENTAL
    RESEARCH (IADR), 6TH MEETING OF THE IADR IRISH DIVISION, 72ND ANNUAL
    MEETING OF THE SCANDINAVIAN ASSOCIATION FOR DENTAL RESEARCH AND THE
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    DUBLIN, IRELAND, JUNE 28-JULY 1, 1989. J DENT RES 68 (SPEC. ISSUE
    JUNE). 1989. 1019. CODEN: JDREAF ISSN: 0022-0345
DT Conference
LA English
                                                        DUPLICATE 7
     ANSWER 8 OF 82 MEDLINE
L5
AN
     89146140
                 MEDLINE
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     89146140
     Antisense RNA-induced reduction in murine TIMP levels
TΙ
     confers oncogenicity on Swiss 3T3 cells.
     Khokha R; Waterhouse P; Yagel S; Lala P K; Overall C M; Norton G;
ΑU
     Denhardt D T
     Department of Biochemistry, University of Western Ontario, London,
CS
     SCIENCE, (1989 Feb 17) 243 (4893) 947-50.
SO
     Journal code: UJ7. ISSN: 0036-8075.
CY
     United States
     Journal; Article; (JOURNAL ARTICLE)
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HUMAN RECOMBINANT TISSUE INHIBITOR OF METALLOPROTEINASE

DN BR37:6748

TIMP INHIBITS NATIVE HUMAN STROMELYSIN IN-VITRO AND AU LARK M W; SAPHOS ; WALAKOVITS L A; MOORE V L CS MERCK SHARP AND DOMME RES. LAB., BIOCHEM. MOL. PATHOL., RAHWAY, N.J. 07065, USA. 73RD ANNUAL MEETING OF THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY, NEW ORLEANS, LOUISIANA, USA, MARCH 19-23, 1989. FASEB (FED AM SOC EXP BIOL) J 3 (3). 1989. A911. CODEN: FAJOEC ISSN: 0892-6638 DT Conference LA English ANSWER 10 OF 82 MEDLINE DUPLICATE 8 MEDLINE AN89306621 DN 89306621 Genes for extracellular-matrix-degrading metalloproteinases ТT and their inhibitor, TIMP, are expressed during early mammalian development. Brenner C A; Adler R R; Rappolee D A; Pedersen R A; Werb Z ΑU Laboratory of Radiobiology and Environmental Health, University of CS California, San Francisco 94143-0750. HD 23539 (NICHD) NC HD 23651 (NICHD) 5 T32 ES07106 (NIEHS) SO GENES AND DEVELOPMENT, (1989 Jun) 3 (6) 848-59. Journal code: FN3. ISSN: 0890-9369. CY United States Journal; Article; (JOURNAL ARTICLE) DT LΑ English FS Priority Journals 198910 EML5ANSWER 11 OF 82 MEDLINE DUPLICATE 9 90134705 MEDLINE DN 90134705 Human mesangial cells secrete a GBM-degrading neutral proteinase and TIa specific inhibitor. Martin J; Davies M; Thomas G; Lovett D H ΑU Medical Service, San Francisco VAMC-University of California. CS RO1 DK 39776-01 (NIDDK) NC KIDNEY INTERNATIONAL, (1989 Nov) 36 (5) 790-801. SO Journal code: KVB. ISSN: 0085-2538. CY United States Journal; Article; (JOURNAL ARTICLE) DT English LΑ FS Priority Journals EΜ 199005 ANSWER 12 OF 82 MEDLINE DUPLICATE 10 L5 89340892 MEDLINE AN 89340892 DN Human osteoblasts in vitro secrete tissue inhibitor of metalloproteinases and gelatinase but not interstitial collagenase as major cellular products. Rifas L; Halstead L R; Peck W A; Avioli L V; Welgus H G ΑU Department of Medicine, Jewish Hospital, Washington University Medical Center, St. Louis, Missouri 63110. AR-32087 (NIAMS) NC AM-35805 (NIADDK) AR-19855 (NIAMS) JOURNAL OF CLINICAL INVESTIGATION, (1989 Aug) 84 (2) SO 686-94.

Journal code: HS7. ISSN: 0021-9738.

Journal; Article; (JOURNAL ARTICLE)

United States

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English LA icus Journals; Priority Journa Cancer Journals Abridged Index FS 198911 EM DUPLICATE 11 ANSWER 13 OF 82 MEDLINE L5 89340891 MEDLINE AN DN 89340891 Evidence for metalloproteinase and ΤI metalloproteinase inhibitor imbalance in human osteoarthritic cartilage. Dean D D; Martel-Pelletier J; Pelletier J P; Howell D S; Woessner J ΑU F Jr Department of Biochemistry & Molecular Biology, University of Miami CS School of Medicine, Florida 33101. AR-16940 (NIAMS) NC AR-08662 (NIAMS) JOURNAL OF CLINICAL INVESTIGATION, (1989 Aug) 84 (2) SO 678-85. Journal code: HS7. ISSN: 0021-9738. CYUnited States Journal; Article; (JOURNAL ARTICLE) DTEnglish LAAbridged Index Medicus Journals; Priority Journals; Cancer Journals FS EΜ 198911 ANSWER 14 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS T₁5 AN 89:329695 BIOSIS DN BR37:32467 TI TRANSCRIPTIONAL CONTROL OF COLLAGENASE AND TIMP PRODUCTION BY THE HUMAN MONOCYTIC CELL LINE U937. SHAPIRO S D; PARKS W C; LEY T J; KAHN A J; PARTRIDGE N; CAMPBELL E J; ΑU WELGUS H G JEWISH HOSP. AT WASHINGTON UNIV. MED. CENT., ST. LOUIS, MO., USA. SO JOINT MEETING OF THE SOCIETY FOR INVESTIGATIVE DERMATOLOGY, EUROPEAN SOCIETY FOR DERMATOLOGIC RESEARCH, AND JAPANESE SOCIETY FOR INVESTIGATIVE DERMATOLOGY, WASHINGTON, D.C., USA, APRIL 26-30, 1989. CLIN RES 37 (2). 1989. 672A. CODEN: CLREAS ISSN: 0009-9279 DT Conference LA English ANSWER 15 OF 82 MEDLINE DUPLICATE 12 L5 MEDLINE 90126366 AN90126366 Developmental expression of tissue inhibitor of metalloproteinase (TIMP) RNA. Nomura S; Hogan B L; Wills A J; Heath J K; Edwards D R ΑU Department of Cell Biology, Vanderbilt University Medical School, CS Nashville, Tennessee 37232. DEVELOPMENT, (1989 Mar) 105 (3) 575-83. SO Journal code: ECW. ISSN: 0950-1991. ENGLAND: United Kingdom CYJournal; Article; (JOURNAL ARTICLE) DTLAEnglish Priority Journals FS EΜ 199005 **DUPLICATE 13** ANSWER 16 OF 82 MEDLINE L5MEDLINE 89206748 AN89206748 DN Characterization of gelatinase from pig polymorphonuclear TIleucocytes. A metalloproteinase resembling tumour type IV collagenase. Murphy G; Ward R; Hembry R M; Reynolds J J; Kuhn K; Tryggvason K ΔIJ

Cell Physiology Department, Strangeways Research Laboratory,

CS

Cambridge, U.K.

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Journal code: 9 ISSN: 0264-6021.
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     ENGLAND: United Kingdom
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     Journal; Article; (JOURNAL ARTICLE)
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     English
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     ANSWER 17 OF 82 MEDLINE
L5
     90093743
ΑN
                  MEDLINE
     90093743
DN
     Matrix metalloproteinases and tissue inhibitor of
TΙ
     metalloproteinases: a review of their role in tumorigenesis
     and tissue invasion.
     Khokha R; Denhardt D T
ΑU
     Cancer Research Laboratory, University of Western Ontario, London,
CS
     Canada.
     INVASION AND METASTASIS, (1989) 9 (6) 391-405. Ref: 72
SO
     Journal code: GV4. ISSN: 0251-1789.
CY
     Switzerland
     Journal; Article; (JOURNAL ARTICLE)
DT
     General Review; (REVIEW)
     (REVIEW, ACADEMIC)
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     English
     Priority Journals; Cancer Journals
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     199004
     ANSWER 18 OF 82 MEDLINE
                                                          DUPLICATE 15
L5
AN
     90022890
                  MEDLINE
DN
     90022890
     Systemic administration of TIMP in the treatment of
TI
     collagen-induced arthritis in mice.
     Carmichael D F; Stricklin G P; Stuart J M
ΑU
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     Synergen Inc., Boulder, CO 80301.
SO
     AGENTS AND ACTIONS, (1989 Jun) 27 (3-4) 378-9.
     Journal code: 2XZ. ISSN: 0065-4299.
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     Switzerland
     Journal; Article; (JOURNAL ARTICLE)
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     199001
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     ANSWER 19 OF 82 MEDLINE
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L5
ΑN
     89275215
                 MEDLINE
DN
     89275215
     The role of plasminogen in cell-mediated collagen degradation.
TT
     Gavrilovic J; Murphy G
ΑIJ
     Cell Physiology Department, Strangeways Research Laboratory,
CS
     Cambridge, U.K.
     CELL BIOLOGY INTERNATIONAL REPORTS, (1989 Apr) 13 (4)
SO
     367-75.
     Journal code: CRC. ISSN: 0309-1651.
     ENGLAND: United Kingdom
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     Journal; Article; (JOURNAL ARTICLE)
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     198909
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     ANSWER 20 OF 82 MEDLINE
     90136309
                  MEDLINE
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     90136309
     Association of collagenase and tissue inhibitor of
ΤI
     metalloproteinases (TIMP) with hypertrophic cell
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enlargement in the growth plate. Dean D D; Muniz O E; Howell D S

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Arthritis Research Laboratory, U.S. Veterans Administration Medical
     Center, Miami,
     AR-08662 (NIAMS)
NC
     MATRIX, (1989 Nov) 9 (5) 366-75.
SO
    Journal code: M54. ISSN: 0934-8832.
     GERMANY, WEST: Germany, Federal Republic of
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     Journal; Article; (JOURNAL ARTICLE)
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    ANSWER 21 OF 82 MEDLINE
                                                         DUPLICATE 18
L5
     89230068
                 MEDLINE
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     89230068
     The effect of lipopolysaccharide from bacteroides gingivalis and
TI
     muramyl dipeptide on osteoblast collagenase release.
     Sismey-Durrant H J; Atkinson S J; Hopps R M; Heath J K
ΑU
     Department of Oral Pathology, London Hospital Medical College,
CS
     England.
SO
     CALCIFIED TISSUE INTERNATIONAL, (1989 May) 44 (5) 361-3.
     Journal code: CGH. ISSN: 0171-967X.
     GERMANY, WEST: Germany, Federal Republic of
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     Journal; Article; (JOURNAL ARTICLE)
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     198908
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     ANSWER 22 OF 82 MEDLINE
ΑN
     89375511
                  MEDLINE
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DN
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     The enzymatic evaluation of procollagenase and collagenase
     inhibitors in crude biological media.
     Lefebvre V; Vaes G
ΑU
     Laboratoire de Chimie Physiologique, Universite de Louvain,
CS
     Brussels, Belgium.
     BIOCHIMICA ET BIOPHYSICA ACTA, (1989 Sep 15) 992 (3)
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     Journal code: AOW. ISSN: 0006-3002.
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     Netherlands
     Journal; Article; (JOURNAL ARTICLE)
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     Priority Journals; Cancer Journals
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     198912
    ANSWER 23 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
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   BR36:73325
    FORMATION OF NEUTRAL PROTEINASE NP COLLAGEN IV CIV AND TISSUE
    INHIBITOR OF METALLOPROTEINASES TIMP BY RESTING
    AND PROLIFERATING MESANGIAL CELLS MCS IN CULTURE.
   GROUND J; LOVETT D H; COFFEE M; KASHGARIAN M; STERZEL R B
CS VAMC-YALE UNIV. SCH. MED., NEW HAVEN, CONN.
   MEETING OF THE AMERICAN SOCIETY OF NEPHROLOGY, SAN ANTONIO, TEXAS,
    USA, DECEMBER 11-14, 1988. KIDNEY INT 35 (1). 1989. 348. CODEN:
    KDYIA5 ISSN: 0085-2538
LA English
    ANSWER 24 OF 82 MEDLINE
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     90125644
                  MEDLINE
     90125644
DN
     Transforming growth factor-beta regulation of collagenase, 72
ΤI
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- TI Transforming growth factor-beta regulation of collagenase, 72 kDa-progelatinase, TIMP and PAI-1 expression in rat bone cell populations and human fibroblasts.
- AU Overall C M; Wrana J L; Sodek J
- CS Medical Research Council Group in Periodontal Physiology, University

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Journal code: M54. ISSN: 0934-8832. SO GERMANY, WEST: Germany, Federal Republic of CY Journal; Article; (JOURNAL ARTICLE) DTEnglish LΑ FS Priority Journals ΕM 199001 ANSWER 26 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS T.5 AN 89:244735 BIOSIS DN BA87:125800 REGIONAL LOCALIZATION OF THE TIMP GENE ON THE HUMAN X CHROMOSOME EXTENSION OF A CONSERVED SYNTENY AND LINKAGE GROUP ON PROXIMAL XP. AU WILLIARD H F; DURFY S J; MAHTANI M M; DORKINS H; DAVIES K E; WILLIAMS BRG CS DEP. MED. GENETICS, UNIV. TORONTO, MED. SCI. BUILDING 4282, TORONTO, ONTARIO M5S 1A8, CANADA. HUM GENET 81 (3). 1989. 235-238. CODEN: HUGEDQ ISSN: 0340-6717 LA English L5 ANSWER 27 OF 82 MEDLINE 89154429 MEDLINE ΑN DN 89154429 Regional localization of the TIMP gene on the human X chromosome. Extension of a conserved synteny and linkage group on proximal Xp. Willard H F; Durfy S J; Mahtani M M; Dorkins H; Davies K E; Williams ΑU Department of Medical Genetics, University of Toronto, Ontario, Canada. HUMAN GENETICS, (1989 Feb) 81 (3) 234-8. Journal code: GED. ISSN: 0340-6717. CYGERMANY, WEST: Germany, Federal Republic of DTJournal; Article; (JOURNAL ARTICLE) LA English FS Priority Journals; Cancer Journals EΜ 198906 DUPLICATE 20 L5ANSWER 28 OF 82 MEDLINE AN89141242 MEDLINE 89141242 DN Neutral metalloprotease from tendons. TΙ Piening C; Riederer-Henderson M A ΑU Department of Orthopaedics, University of Washington, Seattle

JOURNAL OF ORTHOPAEDIC RESEARCH, (1989) 7 (2) 228-34.

Journal code: JIQ. ISSN: 0736-0266.

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     198906
     ANSWER 29 OF 82 MEDLINE
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     90007512 MEDLINE
ΑN
     90007512
DN
     Linkage studies of the Wiskott-Aldrich syndrome: polymorphisms at
ΤI
     TIMP and the X chromosome centromere are informative markers
     for genetic prediction.
     Greer W L; Mahtani M M; Kwong P C; Rubin L A; Peacocke M; Willard H
ΑU
     F; Siminovitch K A
     Department of Medicine, Toronto Western Hospital, Ontario, Canada.
CS
     HUMAN GENETICS, (1989 Oct) 83 (3) 227-30.
SO
     Journal code: GED. ISSN: 0340-6717.
     GERMANY, WEST: Germany, Federal Republic of
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     ANSWER 30 OF 82 MEDLINE
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L5
ΑN
     89382034
                 MEDLINE
     89382034
DN
     Gingival fibroblasts degrade type I collagen films when stimulated
ΤI
     with tumor necrosis factor and interleukin 1: evidence that
     breakdown is mediated by metalloproteinases.
     Meikle M C; Atkinson S J; Ward R V; Murphy G; Reynolds J J
ΑU
     JOURNAL OF PERIODONTAL RESEARCH, (1989 May) 24 (3) 207-13.
     Journal code: JMQ. ISSN: 0022-3484.
CY
     Denmark
     Journal; Article; (JOURNAL ARTICLE)
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     English
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     Dental Journals
     198912
    ANSWER 31 OF 82 MEDLINE
                                                         DUPLICATE 22
L5
     90104231
                 MEDLINE
ΑN
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     90104231
     Fragments of human fibroblast collagenase. Purification and
TI
     characterization.
     Clark I M; Cawston T E
ΑU
     Rheumatology Research Unit, Addenbrooke's Hospital, Cambridge, U.K.
CS
SO
     BIOCHEMICAL JOURNAL, (1989 Oct 1) 263 (1) 201-6.
     Journal code: 9YO. ISSN: 0264-6021.
CY
     ENGLAND: United Kingdom
     Journal; Article; (JOURNAL ARTICLE)
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L5
     ANSWER 32 OF 82 MEDLINE
     89263367
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     89263367
DN
     [Natural inhibitor of metalloproteinases: structural and
     functional study].
     Inhibiteur naturel des metalloproteinases: etude
     structurale et fonctionnelle.
     Faucher D; Leli`evre Y; Boiziau J; Cornet P; Cartwright T
     Rhone-Poulenc Sante (CRMA), Site de Recherche de Monts, France.
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PATHOLOGIE BIOLOGIE, (1989 Mar) 37 (3) 199-205.

Journal code: OSG. ISSN: 0369-8114.

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Journal; Article (JOURNAL ARTICLE)
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     Priority Journal
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     198909
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    ANSWER 33 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
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    89:236476 BIOSIS
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DN BR36:114960
TI EFFECTS OF RECOMBINANT TIMP ON BONE RESORPTION BY ISOLATED
    OSTEOCLASTS.
AU SHIMIZU H; SAKAMOTO M; SAKAMOTO S
CS HARV. SCH. DENTAL MED., BOSTON, MASS., USA.
SO 18TH ANNUAL SESSION OF THE AMERICAN ASSOCIATION FOR DENTAL RESEARCH,
    SAN FRANCISCO, CALIFORNIA, USA, MARCH 15-19, 1989. J DENT RES 68 (SPEC. ISSUE). 1989. 193. CODEN: JDREAF ISSN: 0022-0345
    Conference
LA English
L5
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                                                            DUPLICATE 24
ΑN
     90023570
                  MEDLINE
     90023570
DN
     Increased immunostaining of collagenase and TIMP in
     eruptive xanthoma.
     Childers J W; Stricklin G P
     Section of Dermatology, Medical Service VA Medical Center,
     Nashville, TN 37212.
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     (3) 172-6.
     Journal code: 3L2. ISSN: 0002-9629.
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LΑ
FS
     Abridged Index Medicus Journals; Priority Journals
ĒΜ
     199001
L5
     ANSWER 35 OF 82 MEDLINE
                                                           DUPLICATE 25
     90005712
                   MEDLINE
ΑN
     90005712
DN
     Replicative senescence of human skin fibroblasts correlates with a
TI
     loss of regulation and overexpression of collagenase activity.
     West M D; Pereira-Smith O M; Smith J R
ΑU
     Roy M. and Phyllis Gough Huffington Center on Aging, Baylor College
     of Medicine, Houston, Texas 77030.
NC
     AG-04749 (NIA)
     AG-05333 (NIA)
     PO1-AG-07123 (NIA)
     EXPERIMENTAL CELL RESEARCH, (1989 Sep) 184 (1) 138-47.
     Journal code: EPB. ISSN: 0014-4827.
CY
     United States
     Journal; Article; (JOURNAL ARTICLE)
DT
LΑ
     English
FS
     Priority Journals; Cancer Journals
     ANSWER 36 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
AN 90:38514 BIOSIS
    BR38:17744
TI TIMP-2 COMPLETE PRIMARY STRUCTURE OF A NOVEL MEMBER OF THE
  TIMP FAMILY.
AU STETLER-STEVENSON W G; KRUTZSCH H; LIOTTA L A
    LAB. PATHOL., NATL. CANCER INST., BETHESDA, MD. 20879, USA.
SO TWENTY-NINTH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR CELL BIOLOGY,
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1989. 136A. CODEN: JCLBA3 ISSN: 0021-9525

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- L5 ANSWER 37 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
- AN 90:38512 BIOSIS
- DN BR38:17742
- TI TRANSCRIPTIONAL CONTROL OF COLLAGENASE AND TIMP PRODUCTION BY THE HUMAN MONOCYTIC CELL LINE U937.
- AU SHAPIRO S D; PARKS W C; LEY T J; KAHN A J; PARTRIDGE N; CAMPBELL E J; WELGUS H G
- CS JEWISH HOSP. AT WASHINGTON UNIV. MED. CENT., ST. LOUIS, MO.
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- DT Conference
- LA English
- L5 ANSWER 38 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
- AN 89:401034 BIOSIS
- DN BA88:70459
- TI A HIGH MOLECULAR WEIGHT COLLAGENASE INHIBITOR MADE BY RABBIT CHONDROCYTES IN CELL CULTURE.
- AU MORRIS G M
- CS DEP. PHARMACOL., STATE UNIV. NEW YORK STONY BROOK, STONY BROOK, N.Y. 11794-8651, USA.
- SO MATRIX 9 (2). 1989. 127-134. CODEN: MTRXEH
- LA English
- L5 ANSWER 39 OF 82 MEDLINE

DUPLICATE 26

- AN 90057454 MEDLINE
- DN 90057454
- TI Type I collagen degradation by mouse calvarial osteoblasts stimulated with 1,25-dihydroxyvitamin D-3: evidence for a plasminogen-plasmin-metalloproteinase activation cascade.
- AU Thomson B M; Atkinson S J; McGarrity A M; Hembry R M; Reynolds J J; Meikle M C
- CS Cell Physiology Department, Strangeways Research Laboratory, Worts Causeway, Cambridge, U.K.
- SO BIOCHIMICA ET BIOPHYSICA ACTA, (1989 Nov 20) 1014 (2) 125-32.
 - Journal code: AOW. ISSN: 0006-3002.
- CY Netherlands
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals; Cancer Journals
- EM 199003
- L5 ANSWER 40 OF 82 MEDLINE

DUPLICATE 27

- AN 89292024 MEDLINE
- DN 89292024
- TI Down-regulation of proteolytic activity in 12-0-tetradecanoylphorbol-13-acetate-induced K562 leukemia cell cultures: depletion of active urokinase by excess type 1 plasminogen activator inhibitor.
- AU Alitalo R; Andersson L C; Tapiovaara H; Sistonen L; Vaheri A; Stephens R
- CS Transplantation Laboratory, University of Helsinki, Finland.
- SO JOURNAL OF CELLULAR PHYSIOLOGY, (1989 Jul) 140 (1) 119-30. Journal code: HNB. ISSN: 0021-9541.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals; Cancer Journals
- EM 198910
- L5 ANSWER 41 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
- AN 90:24704 BIOSIS

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DN BA89:11670
TI METALLOPROTEINAS ARE NOT INVOLVED IN THE PHAGOC
    COLLAGEN FIBRILS BY FIBROBLASTS.
AU EVERTS V; HEMBRY R M; REYNOLDS J J; BEERTSEN W
CS LAB. HISTOL. CELL BIOL., ACAD. MED. CENT., MEIBERGDREEF 15, 1105 AZ
   AMSTERDAM, NETHERLANDS.
   MATRIX 9 (4). 1989. 66-76. CODEN: MTRXEH
so
LA
   English
     ANSWER 42 OF 82 MEDLINE
L5
AN
     90107445
                  MEDLINE
     90107445
DN
     Expression of genes for non-collagenous proteins during embryonic
ΤI
     bone formation.
ΑU
     Nomura S; Wills A J; Edwards D R; Heath J K; Hogan B L
     Department of Cell Biology, Vanderbilt University Medical School,
CS
    Nashville, TN 37232.
SO
     CONNECTIVE TISSUE RESEARCH, (1989) 21 (1-4) 31-5;
     discussion 36-9. Ref: 22
     Journal code: DQH. ISSN: 0300-8207.
CY
     ENGLAND: United Kingdom
     Journal; Article; (JOURNAL ARTICLE)
     General Review; (REVIEW)
     (REVIEW, TUTORIAL)
     English
LA
FS
     Priority Journals
EM
     199004
L5
     ANSWER 43 OF 82 MEDLINE
                                                         DUPLICATE 28
AN
     88327732
                  MEDLINE
DN
     88327732
ΤI
     Inhibition by human recombinant tissue inhibitor of
     metalloproteinases of human amnion invasion and lung
     colonization by murine B16-F10 melanoma cells.
     Schultz R M; Silberman S; Persky B; Bajkowski A S; Carmichael D F
ΑIJ
     Department of Biochemistry, Loyola University of Chicago, Stritch
CS
     School of Medicine, Maywood, Illinois 60153.
     CA43305 (NCI)
NC
     CA44659 (NCI)
     CANCER RESEARCH, (1988 Oct 1) 48 (19) 5539-45.
SO
     Journal code: CNF. ISSN: 0008-5472.
CY
    United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LΆ
     English
     Priority Journals; Cancer Journals
FS
EM
     198812
                                                         DUPLICATE 29
L5
     ANSWER 44 OF 82 MEDLINE
ИA
     89067507
                  MEDLINE
     89067507
DN
     Selective up-regulation of human alveolar macrophage collagenase
ΤI
     production by lipopolysaccharide and comparison to collagenase
     production by fibroblasts.
     Cury J D; Campbell E J; Lazarus C J; Albin R J; Welgus H G
ΑU
     Department of Medicine, Jewish Hospital, St. Louis, MO 63110.
CS
NC
     AM35805 (NIADDK)
     HL29594 (NHLBI)
     5T32-HL07317 (NHLBI)
     JOURNAL OF IMMUNOLOGY, (1988 Dec 15) 141 (12) 4306-12.
SO
     Journal code: IFB. ISSN: 0022-1767.
     United States
CY
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Abridged Index Medicus Journals; Priority Journals; Cancer Journals

Journal; Article; (JOURNAL ARTICLE)

DT LA

English

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198903
EΜ
                                                          OUPLICATE 30
     ANSWER 45 OF 82 MEDLINE
L5
                  MEDLINE
     89096910
ΑN
     89096910
DN
     Presence of transcription regulatory elements within an intron of
\mathtt{TI}
     the virus-inducible murine TIMP gene.
     Coulombe B; Ponton A; Daigneault L; Williams B R; Skup D
ΑU
     Institut du Cancer de Montreal, Quebec, Canada.
CS
     MOLECULAR AND CELLULAR BIOLOGY, (1988 Aug) 8 (8) 3227-34.
so
     Journal code: NGY. ISSN: 0270-7306.
     United States
CY
     Journal; Article; (JOURNAL ARTICLE)
DT
     English
LΑ
FS
     Priority Journals
os
     GENBANK-M21162
EM
     198904
     ANSWER 46 OF 82 MEDLINE
                                                          DUPLICATE 31
L5
AN
     88222411
                  MEDLINE
DN
     88222411
     K562 cells produce and respond to human erythroid-potentiating
TI
     activity.
     Avalos B R; Kaufman S E; Tomonaga M; Williams R E; Golde D W; Gasson
ΑU
     Department of Medicine, UCLA School of Medicine.
CS
NC
     CA30388 (NCI)
     CA32737 (NCI)
     CA40163 (NCI)
SO
     BLOOD, (1988 Jun) 71 (6) 1720-5.
     Journal code: A8G. ISSN: 0006-4971.
CY
     United States
\mathsf{DT}
     Journal; Article; (JOURNAL ARTICLE)
LA
     English
     Abridged Index Medicus Journals; Priority Journals; Cancer Journals
FS
EM
     198809
                                                          DUPLICATE 32
L5
     ANSWER 47 OF 82 MEDLINE
AN
     88087284
                  MEDLINE
DN
     88087284
ΤI
     In vitro synthesis of the active tissue inhibitor of
     metalloproteinases encoded by a complementary DNA from
     virus-infected murine fibroblasts.
     Coulombe B; Skup D
ΑU
     Institut du Cancer de Montreal, Quebec, Canada.
CS
     JOURNAL OF BIOLOGICAL CHEMISTRY, (1988 Jan 25) 263 (3)
SO
     1439-43.
     Journal code: HIV. ISSN: 0021-9258.
     United States
CY
     Journal; Article; (JOURNAL ARTICLE)
DT
LA
     English
     Priority Journals; Cancer Journals
FS
EM
     198804
L5
     ANSWER 48 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
    89:192412 BIOSIS
AN
DN BR36:92861
TI TISSUE INHIBITOR OF METALLOPROTEINASES TIMP
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INFLUENCES DEVELOPMENT OF PERI-IMPLANTATION MOUSE EMBRYOS IN CULTURE.

AU BEHRENDTSEN O; ALEXANDER C A; WERB Z

LAB. RADIOBIOL. ENVIRON. HEALTH, UNIV. CALIFORNIA, SAN FRANCISCO, CALIF. 94143-0750.

JOINT MEETING OF THE AMERICAN SOCIETY FOR CELL BIOLOGY AND THE AMERICAN SOCIETY FOR BIOCHEMISTRY AND MOLECULAR BIOLOGY, SAN FRANCISCO, CALIFORNIA, USA, JANUARY 29-FEBRUARY 2, 1989. J CELL BIOL 107 (6 PART 3). 1088. 604A. CODEN: JCLBA3 ISSN: 21-9525 Conference

DT Conference

LA English

L5 ANSWER 49 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS

AN 88:345119 BIOSIS

DN BR35:39961

TI MODULATION OF THE COLLAGENASE INHIBITOR **TIMP** MESSENGER RNA LEVELS BY ANTI-SENSE RNA INFLUENCES THE INVASIVENESS OF MOUSE 3T3 CELLS.

AU KHOKHA R; WATERHOUSE P; YAGEL S; LALA P K; NORTON G; DENHARDT D T

- CS CANCER RES. LAB., UNIV. WESTERN ONTARIO, LONDON, ONT. N6A5B7 CANADA.
- SO 79TH ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH, NEW ORLEANS, LOUISIANA, USA, MAY 25-28, 1988. PROC AM ASSOC CANCER RES ANNU MEET 29 (0). 1988. 439. CODEN: PAMREA
- DT Conference
- LA English
- L5 ANSWER 50 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
- AN 89:171617 BIOSIS
- DN BR36:82858
- TI GENES FOR EXTRACELLULAR MATRIX-DEGRADING **METALLOPROTEINASES**AND THEIR INHIBITOR **TIMP** FUNCTION DURING EARLY MAMMALIAN
 DEVELOPMENT.
- AU BRENNER C A; ADLER R R; RAPPOLEC D A; PEDERSEN R A; BEHRENDTSEN O; WERB Z
- CS LAB. RADIOBIOL. ENVIRON. HEALTH, UNIV. CALIFORNIA, SAN FRANCISCO, CALIF. 94143-0750.
- SO JOINT MEETING OF THE AMERICAN SOCIETY FOR CELL BIOLOGY AND THE AMERICAN SOCIETY FOR BIOCHEMISTRY AND MOLECULAR BIOLOGY, SAN FRANCISCO, CALIFORNIA, USA, JANUARY 29-FEBRUARY 2, 1989. J CELL BIOL 107 (6 PART 3). 1988. 380A. CODEN: JCLBA3 ISSN: 0021-9525
- DT Conference
- LA English
- L5 ANSWER 51 OF 82 MEDLINE
- AN 89110656 MEDLINE
- DN 89110656
- TI Identification of matrix metalloendoproteinase inhibitor (**TIMP**) in human parotid and submandibular saliva: partial purification and characterization.
- AU Drouin L; Overall C M; Sodek J
- SO JOURNAL OF PERIODONTAL RESEARCH, (1988 Nov) 23 (6) 370-7. Journal code: JMQ. ISSN: 0022-3484.
- CY Denmark
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Dental Journals
- EM 198905
- L5 ANSWER 52 OF 82 MEDLINE
- AN 88193653 MEDLINE
- DN 88193653
- TI Role of collagenase in colonic anastomoses: a reappraisal.
- AU Chowcat N L; Savage F J; Hembry R M; Boulos P B
- CS Department of Surgery, University College London, UK.
- SO BRITISH JOURNAL OF SURGERY, (1988 Apr) 75 (4) 330-4. Journal code: B34. ISSN: 0007-1323.
- CY ENGLAND: United Kingdom
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals
- EM 198808
- L5 ANSWER 53 OF 82 MEDLINE

- AN 88271651 MENLINE
- DN 88271651
- TI Human recombinant interleukin-1 alpha-mediated stimulation of procollagenase production and suppression of biosynthesis of tissue inhibitor of metalloproteinases in rabbit uterine cervical fibroblasts.
- AU Ito A; Goshowaki H; Sato T; Mori Y; Yamashita K; Hayakawa T; Nagase
- CS Department of Biochemistry, Tokyo College of Pharmacy, Japan.
- NC AR 39189 (NIAMS)
- SO FEBS LETTERS, (1988 Jul 18) 234 (2) 326-30. Journal code: EUH. ISSN: 0014-5793.
- CY Netherlands
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals; Cancer Journals
- EM 198810
- L5 ANSWER 54 OF 82 MEDLINE

DUPLICATE 33

- AN 88115581 MEDLINE
- DN 88115581
- TI Modulation of fibroblast functions by interleukin 1: increased steady-state accumulation of type I procollagen messenger RNAs and stimulation of other functions but not chemotaxis by human recombinant interleukin 1 alpha and beta.
- AU Postlethwaite A E; Raghow R; Stricklin G P; Poppleton H; Seyer J M; Kang A H
- CS Department of Medicine, University of Tennessee, Memphis 38163.
- NC AM 16506 (NIADDK) AM 26034 (NIADDK)
- SO JOURNAL OF CELL BIOLOGY, (1988 Feb) 106 (2) 311-8. Journal code: HMV. ISSN: 0021-9525.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals; Cancer Journals
- EM 198805
- L5 ANSWER 55 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
- AN 88:370588 BIOSIS
- DN BR35:55201
- TI MODULATION OF THE COLLAGENASE INHIBITOR **TIMP** MESSENGER RNA LEVELS BY ANTI-SENSE RNA INFLUENCES THE INVASIVENESS OF MOUSE 3T3 CELLS.
- AU KHOKHA R; WATERHOUSE P; YAGEL S; LALA P K; NOTRON G; DENHARDT D T
- CS CANCER RES. LAB., UNIV. WEST. ONT., LONDON, ONT., CAN.
- SO SYMPOSIUM ON CELLULAR PROTEASES AND CONTROL MECHANISMS HELD AT THE 17TH ANNUAL UCLA (UNIVERSITY OF CALIFORNIA-LOS ANGELES) MEETING ON MOLECULAR AND CELLULAR BIOLOGY, LAKE TAHOE, CALIFORNIA, USA, FEBRUARY 21-26, 1988. J CELL BIOCHEM SUPPL 0 (12 PART B). 1988. 290. CODEN: JCBSD7
- DT Conference
- LA English
- L5 ANSWER 56 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
- AN 88:238354 BIOSIS
- DN BR34:120874
- TI IDENTIFICATION AND PURIFICATION OF COLLAGENASE INHIBITOR **TIMP**IN HUMAN PAROTID AND SUBMANDIBULAR SALIVA.
- AU DROUIN L; OVERALL C M; SODEK J
- CS MED. RES. COUNCIL GROUP PERIODONTAL PHYSIOL., UNIV. TORONTO, TORONTO, ONTARIO, CAN.
- SO 66TH GENERAL SESSION OF THE INTERNATIONAL ASSOCIATION FOR DENTAL RESEARCH, 17TH ANNUAL SESSION OF THE AMERICAN ASSOCIATION FOR DENTAL RESEARCH, AND 12TH ANNUAL MEETING OF THE CANADIAN ASSOCIATION FOR

DENTAL RESEARCH, CONTREAL, QUEBEC, CANADA, MARCH 13, 1988. J DENT RES 67 (SPEC. I: MAR.). 1988. 242. CODEN: JDF ISSN: 0022-0345

- DT Conference
- LA English
- L5 ANSWER 57 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
- AN 88:238145 BIOSIS
- DN BR34:120665
- TI POLYCLONAL ANTIBODIES TO 3 SYNTHETIC PEPTIDES DERIVED FROM THE CONSENSUS SEQUENCE OF TIMP.
- AU BODDEN M K; BIRKEDAL-HANSEN H
- CS UNIV. ALA. SCH. DENT., BIRMINGHAM, ALA.
- SO 66TH GENERAL SESSION OF THE INTERNATIONAL ASSOCIATION FOR DENTAL RESEARCH, 17TH ANNUAL SESSION OF THE AMERICAN ASSOCIATION FOR DENTAL RESEARCH, AND 12TH ANNUAL MEETING OF THE CANADIAN ASSOCIATION FOR DENTAL RESEARCH, MONTREAL, QUEBEC, CANADA, MARCH 9-13, 1988. J DENT RES 67 (SPEC. ISSUE MAR.). 1988. 210. CODEN: JDREAF ISSN: 0022-0345
- DT Conference
- LA English
- L5 ANSWER 58 OF 82 MEDLINE

DUPLICATE 34

- AN 89138439 MEDLINE
- DN 89138439
- TI Multilocus molecular mapping of the mouse X chromosome.
- AU Mullins L J; Grant S G; Stephenson D A; Chapman V M
- CS Roswell Park Memorial Institute, Molecular and Cellular Biology Department, Buffalo, New York 14263.
- NC GM33160 (NIGMS) GM24125 (NIGMS)
- SO GENOMICS, (1988 Oct) 3 (3) 187-94. Journal code: GEN. ISSN: 0888-7543.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals
- EM 198906
- L5 ANSWER 59 OF 82 MEDLINE
- AN 88152211 MEDLINE
- DN 88152211
- TI Inactivation of tissue inhibitor of metalloproteinases by neutrophil elastase and other serine proteinases.
- AU Okada Y; Watanabe S; Nakanishi I; Kishi J; Hayakawa T; Watorek W; Travis J; Nagase H
- CS Department of Pathology, School of Medicine, Kanazawa University, Japan.
- SO FEBS LETTERS, (1988 Feb 29) 229 (1) 157-60. Journal code: EUH. ISSN: 0014-5793.
- CY Netherlands
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals; Cancer Journals
- EM 198806
- L5 ANSWER 60 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
- AN 88:368671 BIOSIS
- DN BR35:53284
- TI PROFILE OF ACID AND NEUTRAL METALLOPROTEINASES IN OSTEOARTHRITIC OA AND IN CONTROL CARTILAGES COMPARED TO SPECIFIC TISSUE INHIBITOR OF METALLOPROTEINASE TIMP.
- AU DEAN D; PELLETIER J-P; MARTEL-PELLETIER J; HOWELL D S; WOESSNER J F
- CS V.A. MED. CENT., DEP. MED., UNIV. MIAMI SCH. MED., MIAMI, FLA. 33150.
- SO 52ND ANNUAL MEETING OF THE AMERICAN RHEUMATISM ASSOCIATION, HOUSTON, TEXAS, USA, MAY 23-28, 1988. ARTHRITIS RHEUM 31 (4 SUPPL.). 1988. S33. CODEN: ARHEAW ISSN: 0004-3591

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LA English
     ANSWER 61 OF 82 MEDLINE
                                                           DUPLICATE 35
L5
     88058939
                  MEDLINE
ΑN
     88058939
DN
     Monocyte procollagenase and tissue inhibitor of
ΤI
     metalloproteinases. Identification, characterization, and
     regulation of secretion.
ΑU
     Campbell E J; Cury J D; Lazarus C J; Welgus H G
     Department of Medicine, Jewish Hospital at Washington University
CS
     Medical Center, St. Louis, Missouri 63110.
     HL30341 (NHLBI)
     AM35805 (NIADDK)
     HL07317 (NHLBI)
     JOURNAL OF BIOLOGICAL CHEMISTRY, (1987 Nov 25) 262 (33)
SO
     Journal code: HIV. ISSN: 0021-9258.
     United States
CY
     Journal; Article; (JOURNAL ARTICLE)
DT
     English
LΑ
     Priority Journals; Cancer Journals
FS
     198803
EΜ
     ANSWER 62 OF 82 MEDLINE
L5
     87231017
               MEDLINE
AN
DN
     87231017
TI
     Assignment of the TIMP gene to the murine X-chromosome
     using an inter-species cross.
     Jackson I J; LeCras T D; Docherty A J
ΑU
     NUCLEIC ACIDS RESEARCH, (1987 May 26) 15 (10) 4357. Journal code: O8L. ISSN: 0305-1048.
SO
     ENGLAND: United Kingdom
CY
     Journal; Article; (JOURNAL ARTICLE)
\mathsf{D}\mathbf{T}
LΑ
     English
     Priority Journals; Cancer Journals
FS
EΜ
     198709
                                                           DUPLICATE 36
L5
     ANSWER 63 OF 82 MEDLINE
AN
     87306864
                  MEDLINE
     87306864
DN
     Bacterial antigens induce collagenase and prostaglandin E2 synthesis
TI
     in human gingival fibroblasts through a primary effect on
     circulating mononuclear cells.
     Heath J K; Atkinson S J; Hembry R M; Reynolds J J; Meikle M C
ΑU
     INFECTION AND IMMUNITY, (1987 Sep) 55 (9) 2148-54. Journal code: GO7. ISSN: 0019-9567.
CY
     United States
     Journal; Article; (JOURNAL ARTICLE)
DT
     English
FS
     Priority Journals; Cancer Journals
EM
     198712
     ANSWER 64 OF 82 MEDLINE
                                                           DUPLICATE 37
L5
                 MEDLINE
     88004396
AN
     88004396
DN
     Transforming growth factor beta modulates the expression of
TI
     collagenase and metalloproteinase inhibitor.
     Edwards D R; Murphy G; Reynolds J J; Whitham S E; Docherty A J;
ΑU
     Angel P; Heath J K
     Department of Biochemistry, University of Oxford, UK..
CS
     EMBO JOURNAL, (1987 Jul) 6 (7) 1899-904.
SO
     Journal code: EMB. ISSN: 0261-4189.
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ENGLAND: United Kingdom

CY

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Journal; Article: (JOURNAL ARTICLE)
DT
LA
    English
    Priority Journal
FS
EM
    198801
                                                         DUPLICATE 38
L5
    ANSWER 65 OF 82 MEDLINE
    87239677
                 MEDLINE
ΑN
DN
    87239677
    Human alveolar macrophages secrete an inhibitor of
TI
    metalloproteinase elastase.
    Albin R J; Senior R M; Welgus H G; Connolly N L; Campbell E J
ΑU
    HL-29594 (NHLBI)
NC
    HL-30341 (NHLBI)
    HL-07317 (NHLBI)
    AMERICAN REVIEW OF RESPIRATORY DISEASE, (1987 Jun) 135 (6)
SO
    Journal code: 426. ISSN: 0003-0805.
    United States
CY
DT
    Journal; Article; (JOURNAL ARTICLE)
LΑ
    English
FS
    Abridged Index Medicus Journals; Priority Journals
    198709
                                                         DUPLICATE 39
L5
    ANSWER 66 OF 82 MEDLINE
    88059565
                 MEDLINE
ΑN
    88059565
DN
TI
    Regulation of the expression of tissue inhibitor of
    metalloproteinases and collagenase by retinoids and
     glucocorticoids in human fibroblasts.
    Clark S D; Kobayashi D K; Welgus H G
ΑU
    Department of Medicine, Jewish Hospital, Washington University
    Medical Center, St. Louis, Missouri 63110.
    AM 35805 (NIADDK)
NC
    TO-AM 07284 (NIADDK)
    AM 01525 (NIADDK)
    JOURNAL OF CLINICAL INVESTIGATION, (1987 Nov) 80 (5)
SO
    1280-8.
    Journal code: HS7. ISSN: 0021-9738.
    United States
CY
\mathsf{D}\mathbf{T}
    Journal; Article; (JOURNAL ARTICLE)
LΑ
    English
FS
    Abridged Index Medicus Journals; Priority Journals; Cancer Journals
EM
    198803
    ANSWER 67 OF 82 BIOSIS COPYRIGHT 1998 BIOSIS
L5
AN 88:211054 BIOSIS
DN BR34:104064
TI A VIRUS INDUCIBLE ELEMENT CONTAINED WITHIN AN INTRON OF THE MURINE
    TISSUE INHIBITOR OF METALLOPROTEINASES TIMP GENE.
AU COULOMBE B; PONTON A; WILLIAMS B R G; SKUP D
CS INST. DU CANCER DE MONTREAL, MONTREAL, QUEBEC, CANADA H2L 4M1.
   1987 INTERNATIONAL SOCIETY FOR INTERFERON RESEARCH MEETING ON THE
    INTERFERON SYSTEM, WASHINGTON, D.C., USA, NOVEMBER 2-6, 1987. J
    INTERFERON RES 7 (6). 1987. 749. CODEN: JIREDJ ISSN: 0197-8357
DT Conference
LA English
    ANSWER 68 OF 82 MEDLINE
                                                         DUPLICATE 40
L5
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DN
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TI
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                       ngdom
     ENGLAND: United
CY
DT
     Journal; Article; (JOURNAL ARTICLE)
LΑ
     English
FS
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ΕM
    198709
                                                         DUPLICATE 41
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     ANSWER 69 OF 82 MEDLINE
AN
     88076930
               MEDLINĒ
DN
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ΤI
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DT
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LΑ
FS
     Priority Journals; Cancer Journals
EΜ
     198803
L5
     ANSWER 70 OF 82 MEDLINE
                                                         DUPLICATE 42
AN
     88105457
               MEDLINE
DN
     88105457
ΤI
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ΑU
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LΑ
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     Priority Journals; Cancer Journals
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    198804
EM
L5
     ANSWER 71 OF 82 MEDLINE
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               MEDLINE
AN
     88007986
DN
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TI
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ΑU
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    Journal; Article; (JOURNAL ARTICLE)
DΤ
    English
LΑ
    Priority Journals
FS
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DUPLICATE 44

ΕM

L5

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198801

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DN
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     Abridged Index Medicus Journals; Priority Journals
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     198802
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     ANSWER 73 OF 82 MEDLINE
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                  MEDLINE
DN
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EM
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L5
AN
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DN
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TI
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DT
LΑ
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FS
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EΜ
     198712
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L5
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ΑN
DN
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ΤI
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EΜ
     198802
L5
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ΑN
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DN
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ΤI
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EM
     198609
L5
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ΑN
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FS
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     198703
L5
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AN 87:158402 BIOSIS
DN
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ΑN
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DN
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LA
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     Priority Journals; Cancer Journals
FS
     198703
EM
L5
     ANSWER 80 OF 82 MEDLINE
                                                          DUPLICATE 46
AN
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DN
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Priority Journals; Cancer Journals

ENGLAND: United Kingdom

CY

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FS EM English

198704

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UPLICATE 47
     ANSWER 81 OF 82 MEDLINE
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                       NE
ΑN
     87049506
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DN
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ΑU
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NC
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LΑ
     English
     Priority Journals
FS
     198703
EΜ
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L5
                 MEDLINE
     86321251
AN
     86321251
DN
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TI
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CY
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DT
     General Review; (REVIEW)
     English
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     Priority Journals
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